A Plan to Accelerate the Transition to Performance-Based Services:

Report of the 912(c) Study Group for Review of the Acquisition Training, Processes, and Tools for Services Contracts

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Executive Summary

On 1 April 1998, the Secretary of Defense submitted a report to Congress, "Actions to Accelerate the Movement of the New Workforce Vision." The report identified several new initiatives, including one to increase acquisition workforce education. In particular, it stated,

> As the Department moves into the 21st century, the amount of goods DoD buys will be reduced. DoD will increasingly adopt the commercial practice of purchasing services instead of things. This will require the Department to change significantly the way it thinks about, and actually acquires, services. To implement effectively these changes, DoD will need to train the entire acquisition workforce, and those who establish requirements, on this new focus. DoD will also have to develop tools to facilitate the change in behavior, and the structuring of the acquisitions themselves.

In that report, the Secretary directed formation of "a team to develop training and tools which focus on acquiring services. The training and tools will include guidance on purchasing services to meet needs." The team that formed included contracting specialists and functional professionals responsible for writing requirements for services from the armed services and defense agencies. This is the report of that team.

While training and processes for all service acquisitions can be improved, the greatest opportunity for improved performance in DoD lies in larger, more complex service acquisitions; hence, this is where the need for new training lies as well. The team focused on three kinds of large, complex service acquisitions that are likely to become more common in DoD as it continues to extend acquisition reform to services and emulates best commercial practices that fit Government needs. With these service acquisitions in mind, the team first identified key factors likely to characterize the environment in which DoD will acquire such services in the future. It examined current training material to determine what courses on these factors were already available to DoD personnel. It then identified specific opportunities to improve those course offerings.

In particular, (1) the team identified the topics that courses available to DoD personnel should cover to help them execute innovative performance-based service acquisitions (PBSAs), and (2) the team outlined the basic content of a prototype course on PBSA for operational services, focused primarily at the installation level. DoD should provide this course, "just in time," to the multifunctional team who will work together to execute an innovative service acquisition in a particular setting. DoD should develop comparable courses relevant to other forms of large, complex service acquisitions.

LARGE, COMPLEX SERVICE ACQUISITIONS

In its approach to training, the team recommends that DoD distinguish three forms of large, complex service acquisitions. The audience for PBSA training is different in each of these three areas. DoD should carefully craft its policy on PBSA training to reflect each of these audiences:

1. *Services relevant to depot-level sustainment of weapon systems*. Such services occur in an environment dominated by DoD personnel considered part of the traditional acquisition workforce (for example, as defined by the Defense Acquisition Workforce Improvement Act or DAWIA). From its long experience with system acquisition, this workforce is already familiar with many aspects of large, complex acquisitions. Within DoD, it is relatively highly skilled. DoD has given this workforce more attention than any other in its efforts to date to implement acquisition reform. In the areas of total system performance responsibility and contractor logistics support (CLS), the workforce is already pursuing initiatives that emphasize an innovative approach to acquiring services.

   From a training perspective, the Defense Acquisition University (DAU) can reach most members of this workforce. The team recommends that DoD work through DAU to teach this workforce about PBSA. DAU should review its course material, as discussed below, to improve its coverage of PBSA.

   As a result of the early findings of this study, the Defense Systems Management College (DSMC) agreed to develop a course elective to improve acquisition of services related to CLS of major weapon systems. It has completed pilot work on this elective, which will be offered in the 99-2 Advanced Program Management Course (APMC). Based on the results of this pilot, DSMC will determine whether to extend this content into other existing courses—and/or whether it should be expanded into a standalone course. If a standalone course is recommended, an appropriate functions board and DAU would need to sponsor its development and designate it as a requirement for one or several functional disciplines.

2. *Services relevant to operational activities, primarily at the installation level*. Base operations and support functions along with maintenance and logistics support dominate this area. Workforce professionals are also important to the administration of public-private cost comparisons mandated by Office of Management and Budget (OMB) Circular A-76. Personnel from the traditional acquisition workforce, like contracting and financial management professionals, play key roles but do not set requirements or provide quality assurance for the acquisition of such services.

   Unlike their acquisition counterparts, the functional professionals in these areas are not part of the DAWIA workforce. They are less experienced in the acquisition process and have had limited exposure to acquisition reform. These functionals are already pursuing their own defense reform initiatives that naturally compete with acquisition reform for their management attention and

the focus of their functional leaders. Large, complex service acquisitions are becoming more common here but remain quite unusual.

No one DoD organization is well suited to coordinate training for all personnel involved in such service acquisitions. But the services involved have a common, generic character, and are often quite similar to analogous commercial services. These characteristics suggest that one point of focus would be desirable in DoD. The team recommends that DoD choose an organization or designate a lead Service responsible for developing a management plan. That organization should move immediately to create new training material DoD-wide for teams representing all of the disciplines relevant to this form of service acquisition. To promote such an effort, the team has focused on this type of service acquisition in its efforts to craft a prototype course on PBSA, described in Chapter 6.

3. *Other, more specialized, large, complex services.* Health care, telecommunications, wartime transportation, information, and other inherently complicated service acquisitions typically involve complex technologies and complex organizational arrangements. Acquisitions often extend across organizational boundaries within DoD, raising difficult challenges for requirements determination and governance. Each acquisition raises unique challenges related to the technological and organizational issues at hand. Acquisitions relevant to privatizing housing and utilities are inherently simpler. But even here, DoD is buying services in a very new way—DoD wants to induce private firms to finance housing and utility assets and then use these assets to provide housing and utility services to DoD. Developing relationships to do this—with lives as long as 50 years!—raises its own challenges. All such acquisitions are large and complex.

   As in installation acquisitions, the functional professionals responsible for these more specialized, large, complex services dominate these acquisitions; members of the traditional acquisition workforce are present mainly to support the professionals' efforts. DoD is implementing a wide variety of innovative acquisition practices in these areas, but each area naturally defines an independent province. The team could not identify opportunities to treat these provinces in a unified way. The team recommends that DoD address PBSA training in the context of each of these major types of complex services. More work is needed to develop PBSA training policy in each area. As part of that work, the team recommends that DSMC work with each of the relevant communities (that is, health care and others listed above) in DoD to tailor training on PBSA, described below. DAU, in conjunction with the Functional Board Process, should do this for its courses by March 2000.

REQUIREMENTS FOR A NEW KIND OF TRAINING

What is needed is a new way to think about the skills relevant to service acquisition. The workforce must become less inward-looking and more outward-looking. Individuals must think less about complying with the specific regulations or procedures maintained by their functional specialties and more about improving the

performance of their ultimate customers. They can no longer be content with acquisition practices that worked in the past; they must constantly seek new ideas from other parts of DoD and the commercial world beyond. They must increasingly identify ways to entice the best commercial firms to sell services to the Government.

These individuals' functional specialties will remain important. Successful PBSA cannot occur without a wide variety of in-depth skills. Similarly, these individuals must sustain their commitment to professional integrity and the public trust. But the individuals with these skills and values must learn to apply those skills and values in teams with other specialists who all work together to develop creative solutions, using shared, common goals. As DoD automates its simple, transaction-driven acquisition work, the personnel who remain must acquire additional skills to operate in this new higher risk, performance-oriented, team-oriented, creative environment. They must acquire the skills and confidence they need to develop good business judgment.

All of the work on training needs to be integrated with real contractual and regulatory acquisition reform to enable commercial firms to enter or reenter the DoD supply base, which will make available to DoD many commercial technologies and services that are currently unavailable, increasing competition for DoD requirements.

A Prototype "Just-in-Time" Course on PBSA for Installation Acquisition Teams

For the largely non-DAWIA workforce involved in the acquisition of complex installation acquisitions, a "just-in-time" PBSA course provides one way to implement the guidance offered above. It lets the members of a multifunctional team, who will work together to solve real problems in the future, practice in a well-controlled, realistic training environment where they can explore the implications of using a variety of approaches to acquisition. This course should be delivered on-site and include a strong emphasis on team building. Since the workforce to be trained is largely non-DAWIA, the course development and delivery, while coordinated with DAU, should not be a DAU responsibility. The study group developed guidelines that DoD can use to launch a prototype just-in-time course on operational services (Chapter 6 provides details).

Over its 40-hour duration, the course first introduces the team to be trained to team decision making, and then uses a detailed business case, based on the operational services relevant to the team in question, to walk the team through four basic elements of PBSA:

1. Requirements determination that translates the ultimate customer's needs into a coordinated set of performance-oriented metrics
2. Market research to discover the best way to attract high-quality commercial offerors and to structure mutually attractive relationships with them
3. A performance-based work statement and quality assurance plan (QAP) tailored to the circumstances at hand

4. Proactive performance management that reduces the number and size of surprises or conflicts that a buyer and seller encounter and helps the buyer and seller resolve conflicts in a mutually satisfactory way when they do arise

SUMMARY OF TRAINING REQUIREMENTS

The chart below summarizes key aspects of the two training courses being recommended by the 912(c) group. The just-in-time course focuses on non-DAWIA workforce personnel associated with base or installation services. The CLS training is an elective developed by DSMC for the DAWIA population typically responsible for the acquisition of sustainment services supporting major weapon systems.

Annual Estimate	Just in Time	CLS
Number of offerings	393	3–28
Throughput	5,760	60–1,320
Ratio (non-DAWIA/DAWIA)	Range of 3:1 to 6:1	All DAWIA
Instruction location	On-site	Ft. Belvoir, VA
Length	40 hrs	4 hrs
Personnel to be trained	69,743	TBD
Pilot training developed	TBD	June 99
FY99 funding required to develop	$300,000	$5,000
Add'l annual funding to deliver	$3,400,000	$5,000

ONGOING ACTIONS

The 912(c) study group has initiated the following actions:

- Laying the groundwork to seek industry suppliers for a pilot Just-in-Time PBSA course for large, complex acquisitions at the installation level. A Sources Sought Synopsis has been issued, an in-depth training needs assessment has been completed (see Appendix G) and an Industry Day has been held. The pilot course should be complete 8 months after funding is approved. With appropriate funding, estimated at $3.4 million per year, 5,760 students per year (8 percent of the relevant population) can begin training.

- DSMC has taken the initiative to develop a pilot elective of 4 hours focusing on sustainment services associated with major weapon systems. This elective was completed in June 1999 and will be incorporated in the 99-2 APMC. An evaluation process, based on identified learning objectives, will be detailed in the program development plan. Depending on whether elements of this pilot are seen to have broader usefulness, DSMC will determine whether to incorporate these key elements into other existing courses. DSMC will also consider whether the elective should be expanded into a standalone course.

Chapter 1

Background, Charter, Objectives, and Process

BACKGROUND

Since the mid-1980s, DoD has focused on increasing the knowledge and skills of the contracting workforce. Milestones in this effort include the passage of DAWIA, the establishment of DAU, and the expansion of training opportunities through DSMC. The Department recognizes that services acquisitions are increasing in both frequency and complexity and that services-related education and training opportunities must expand commensurately. Furthermore, the curricula to support services acquisitions must reflect the increasingly frequent use of performance-based contracting techniques (see the example in Appendix G).

The Department needs personnel with sufficient experience, education, and training to shift from a process-based to a performance-based contracting environment. As DoD relies more on "support services" contractors, both to provide direct assistance to DoD managers and to perform commercial-type activities, it is essential that services contracts be developed and managed effectively. As part of a multifunctional team, acquisition and requirements personnel must learn to articulate, using performance-based language, what they expect from contractors providing support services. Additionally, these personnel must improve their performance management skills to ensure that the Government's high expectations are being fulfilled. The objective of this study is to recommend ways to achieve this transition in services contracting by improving the education and training these personnel receive.

CHARTER

Under the auspices of Section 912(c) of the National Defense Authorization Act for fiscal year (FY) 1998, the Under Secretary of Defense (Acquisition and Technology)—USD(A&T)—directed the Deputy Under Secretary of Defense (Acquisition Reform)—DUSD(AR)—to establish a study group to review the adequacy of current and planned training and tools for the acquisition workforce (civilian and military personnel) in support of services contracting.

The study group was directed to ensure that the training and tools adequately address such issues as

- Discharge of Governmental responsibilities
- Performance criteria and measurement mechanisms
- Accountability and potential for waste, fraud, and abuse
- Reward systems for contractor performance
- Unallowable and inappropriate contractor costs
- Treatment of nonprofit contractors and subcontractors
- Methods to stimulate competition and simplify administration

OBJECTIVES

The study group was guided by the following objectives:

- Identify areas where the process of contracting for services should be changed in order to
  - Improve support for the acquisition needs of the Department.
  - Emulate best commercial purchasing and supply management processes, including contract formation and negotiation, in ways that promote DoD's own services acquisition goals.[1]
  - Increase the emphasis on fixed-price contracts.
- Identify the processes by which performance-based standards are developed and integrated into contracts for the acquisition of services. Compare these processes to industry standards that tie price to performance.
- Examine the role of performance-based contracting in improving DoD services contracting. Identify the quantity and results of performance-based contracts to date.
- Identify the potential for improvements by accomplishing the following tasks:
  - Review existing training programs available to all personnel involved in the acquisition of services, including installation support, outsourcing (under OMB Circular A-76), and technical, engineering, and management support services.

[1] Although the group focused on best commercial practices, it agreed that best practices from any source deserved attention. The focus on commercial practice reflects the group's belief that DoD already knows how to learn from best Government practice but could improve its ability to learn from best commercial practice. Chapter 2 discusses this point at greater length.

- Redefine the requirements for procuring services from the commercial sector in order to meet military performance requirements without imposing undue specifications on commercial vendors.

- Establish output metrics to track the progress of the implementation of study group recommendations.

PROCESS

The study group membership included representatives from the Office of the Secretary of Defense, the military departments, the Joint Staff, the defense agencies, and industry. The group divided this study into three phases, which are described below.

Phase I—Identify the Current State

The phase I team gathered data defining the acquisition environment, the skill mix of the workforce, and the training available to the current acquisition workforce. It identified the current services acquisition processes and tools. Chapters 4 and 5 of this report contain much of this information.

Phase II—Outline the Concept for the Future

The phase II team outlined the "to be" environment that would ideally reflect the future acquisition of services. The team did this by gathering data, projecting the environment and personnel skills necessary to function effectively therein, and reviewing projections on the future of service acquisitions. The phase II team generated a list of 12 assumptions regarding the future of DoD acquisitions. These assumptions are detailed in Chapter 2.

Phase III—Perform Gap Analysis

The phase III team developed the study recommendations found in Chapter 6. This team defined the environment, work skills, and training required by the acquisition workforce to meet the "to be" concept for acquiring services in the future. The phase III team chose to

- Focus on large, complex service contracts, such as healthcare and satellite support

- Address the institutional changes required to transform the workforce and DoD culture into a services-oriented culture

- Address methods of evaluating performance for services contracts (metrics)

- Ensure representation of the broad spectrum of services

THE ORGANIZATION OF THIS REPORT

The report is organized into six chapters and eight appendices. Following this introductory chapter is Chapter 2, which discusses the future environmental factors that will impact the delivery of performance-based services contracting (PBSC). Chapter 3 describes critical factors influencing services contracting. Chapter 4 examines course offerings currently available for practitioners, finding that the focus on performance-based contracting is insufficient. Chapter 5 identifies delivery methods that the Department might use to offer performance-based training, including just-in-time training. Chapter 6 makes recommendations for accelerating this transition. Chapter 7 makes recommendations for accelerating this transition.

Appendix A to this report lists existing services courses. Appendix B contains the proposed performance-based services skill list. Appendix C describes examples of successful performance-based contracting that might be used as the bases for case studies. Appendix D is an example of good PBSA. Appendix E contains an implementation schedule for the just-in-time training. Appendix F discusses development and delivery cost. Appendix G is a report on the needs assessment for the Just-in-Time PBSA course.

Chapter 2

Two Revolutions in Services Contracting

INTRODUCTION

> Downsize excess workforce. Cut unneeded infrastructure. Cut headquarters bureaucracy, adopt the best business practices in the industry, go paperless wherever possible, and shed non-core business functions that someone else can do more cheaply for you. And that, simply put, is what we are doing in the Department of Defense today.[2]

The trend toward the increased use of innovative services contracts is not the result of a single factor or overarching policy. Instead, it is the result of a political mandate for more efficient, scaled-down Government operations characterized by the above quote from Secretary William Cohen's speech. This environment is the result of fiscal constraints that demand ever more efficient use of resources to adequately support the warfighter. It is also the result of initiatives to increase civil-military integration by relying more effectively on the commercial sector to provide operational support to DoD. Most important, it is the result of security considerations that demand the maximum support of our warfighters through the best practices and the best technology available. All of these factors contribute to the increased use of innovative services contracting that allows the commercial marketplace to meet DoD needs. We can characterize the overall trend as having two major components—an increase in volume and complexity, and a shift in emphasis to performance-based methods.

INCREASE IN VOLUME AND COMPLEXITY

Figure 2-1 illustrates the magnitude of the increasing use of services contracts relative to other contracts. The total DoD contract dollars expended for equipment have declined by 16 percent over the past decade, while the total DoD contract dollars expended for services have increased by 16 percent. (DoD's research expenditures have remained virtually unchanged.) Given this pattern, by the millennium, services can be expected to overtake equipment as DoD's largest procurement category.

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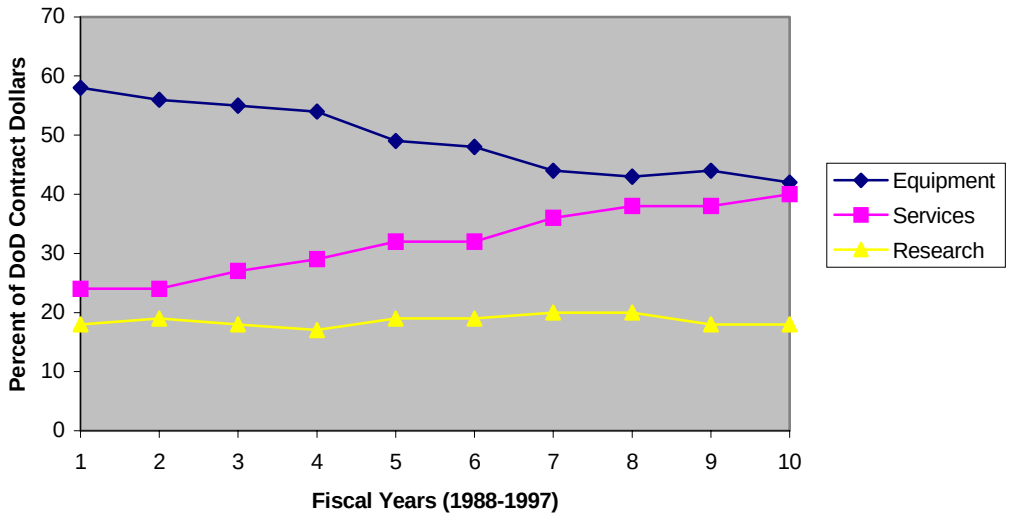
[2] Secretary William Cohen—Fortune 500 Speech, 15 October 1998.

Figure 2-1. Distribution of Prime Contracts for Equipment, Services, and Research[3]

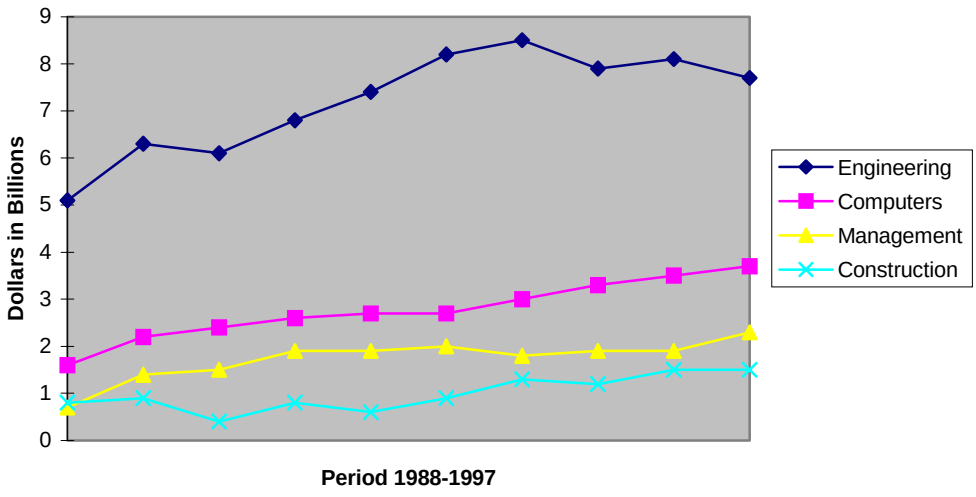


DoD prime contracts awarded for services in FY97 totaled approximately $42 billion, of which four categories—engineering and architecture, computers and data processing, management and public relations, and residential building construction—made up slightly more than 33 percent.[4] The impressive percentage increase in these four categories over 9 years is illustrated in Figure 2-2. Between 1988 and 1997, the dollars expended on engineering and architecture contracts increased by 50 percent; on computers and data processing, by 130 percent; on management and public relations, by 228 percent; and on residential building construction, by 87 percent.

[3] *Defense Spending Trends and Geographical Distribution of Prime Contract Awards and Compensation*. GAO/NSIAD-98-195. August 1998, p. 6.

[4] Eagle Eye Inc. *Federal Prime Contracts on Compact Disk*.

Figure 2-2. Growth in DoD Prime Contract Awards for Selected Service Categories (1988–1997)[5]



Because many factors are contributing to the increased use of services contracts, this solid trend is likely to continue unabated.

Services acquired by DoD are also becoming increasingly complex. One of the major drivers of this trend is the penetration of information technology, itself highly complex, into every realm of military activity, even the simplest. Another driver is the growing realization of economies of scale by aggregating services that were previously contracted out individually.

The Maxwell AFB, AL, operations support services RFP, which the Air Force Air Education and Training Command (AETC) issued in March 1999,[6] is a good example of this. As part of a cost comparison to be conducted under OMB's Circular A-76, the solicitation bundles a variety of activities related to base operating support that were previously provided by more than 800 people in organic activities. In the past, a typical A-76 cost comparison involved a single support activity with fewer than 20 people. Whereas A-76 cost comparisons of multifunctional activities involving more than 300 billets were rare until 1997, they are now fairly common. They are likely to become increasingly common as DoD learns how to conduct such studies with

[5] *Defense Spending Trends and Geographical Distribution of Prime Contract Awards and Compensation*. GAO/NSIAD-98-195. August 1998, p. 7.

[6] For information, use the GSA Electronic Posting System, at www.eps.gov/cgi-bin/WebObjects/EPS at the Air Force AETC listing for solicitation F41689-99-R-0025, issued on 22 March 1999.

greater ease and extends such aggregation of activities to recompetitions of existing contracts for support services.

THE SHIFT TO PERFORMANCE-BASED METHODS

Best commercial practice is moving rapidly toward the use of PBSA methods. Through its acquisition reform and other related defense reform efforts, DoD is following suit.

Commercial and DoD practice historically relied on simple, arm's-length contracts to acquire simple support services. The buyer would specify exactly what it wanted in a detailed statement of work (SOW), often including details on how the work would be done. The buyer would then hold a competition based almost entirely on the relative costs of offerors. It would pick the low-cost provider that demonstrated a threshold level of technical capability and rely on close oversight to ensure delivery of the services needed. This "outtasking" approach to acquiring services often led to a "bid-and-bash" acquisition regime, dominated by driving cost down and then bashing the supplier to demand delivery.

During the 1980s and 1990s, a growing number of commercial firms have discovered that they can get better, faster, and cheaper performance by developing longer-term relationships with providers. These partnerships use an entirely different acquisition plan. Buyers determine strategically that an outside source is better than themselves at meeting their needs in a particular service area. These buyers then seek a provider who can meet these needs. The buyers focus on their strategic needs in a particular service area—for example, how does food service or air-conditioning maintenance relate to the internal processes that these buyers use to serve their own customers? The buyers then choose a provider of these services that can effectively integrate the services with the buyer's internal processes and then use its own expertise to improve the performance of the services themselves. The buyer determines *what* it wants; the provider determines *how* to provide this.

Three factors are important to such an approach:

- Defining what the buyer really wants
- Picking a provider who can in fact provide what the buyer wants
- Motivating the provider to continue to perform and in fact improve its performance relative to the buyer's needs

Buyers and providers use a performance-based approach to services acquisition to address these factors:

- A buyer and potential sellers work together to define the performance relevant to the buyer's own customers and internal processes that serve them. This requires an initial discussion and then—once the buyer chooses one source—

an ongoing discussion of how to measure performance to ensure that the seller knows what the buyer wants.

- The buyer seeks performance measures it can use to pick a provider who is likely to make a good partner over the long term. It uses a source selection focused more on such measures than on current or historical cost. Sellers maintain performance data that they expect potential buyers will value in a source selection to distinguish themselves from other sellers. Although the choice of the relevant performance measures need not be joint for any particular source selection, over time, both buyers and sellers effectively contribute information relevant to the choices made in various source selections.

- After the buyer chooses a source, the buyer and seller work together to measure their joint performance and allocate between themselves the gains that come from improvements over time. Many things can help motivate a good provider. In the simplest version, the buyer specifies a baseline and shares any improvement beyond this with the provider. In more subtle versions, the buyer rewards performance by extending the length of a contract or reducing oversight; either choice reduces the seller's (and buyer's) administrative costs. The buyer may also expand the activities that a seller provides. Meanwhile, the seller monitors the buyer's ability to act as a partner and continues to provide services only as long as this buyer offers as many opportunities for its own gains as some other buyer might; the buyer motivates such a seller by performing as a good partner. However the buyer and seller agree to manage their relationship, performance and its measurement lie at the heart of the agreement.

The details associated with how buyers and sellers approach the three factors above vary dramatically from one acquisition to another and continue to evolve over time even within any acquisition. The best way to define and use performance-based methods to improve service acquisition is not a closed book and is not likely to become a closed book. Continuous improvement is an integral part of these methods.

These are the kinds of acquisition practices that DoD reformers seek to emulate in their pursuit of a DoD revolution in business affairs. Acquisition reform and related defense reform activities are opening the opportunities for DoD to address each of the factors above.

- These efforts formally attempt to focus DoD's attention on *what* it wants so that its providers can take greater responsibility to define *how* to provide what DoD wants.

- These efforts promote the use of best-value competitions and longer, more in-depth and more open communication between DoD and potential providers to help DoD pick the right sources. These efforts interpret standing policies on competition and the use of small business in ways that make it easier to emulate commercial practices, although the most aggressive commercial practices remain (and will remain) beyond DoD's reach. Because the goals of

a DoD source selection differ from those in a commercial source selection, the most aggressive commercial methods are not appropriate for DoD use.

- These efforts emulate best commercial practice with incentive contracts, often using formal award fees or award terms. They seek to refocus quality assurance away from procedural concerns and more toward substantive performance. Growing use of past performance in DoD source selections dramatically changes the provider's incentives during any contract by conditioning future access to DoD contracts on the provider's current performance.

Reform of defense management and acquisition has a long history. DoD began its current efforts to reform acquisition in 1993 by, among other things, pursuing the changes discussed above. It focused its initial attention on making DoD's largest acquisitions—for the design, development, and production of weapon systems—more performance based. It then turned to improving the acquisition of sustainment services for major weapon systems. By 1998, DoD had formally turned its attention to performance-based acquisitions for installation-related services. It is also beginning to apply these ideas to larger, more complex contracts for information and health services.

The benefits of performance-based acquisition have been demonstrated in commercial practice. It is too early to document the actual effects of DoD's efforts to use performance-based services acquisition. Although acquisition reform and related forms of defense reform do not give DoD access to all the acquisition practices being tested by the best commercial firms, they do allow DoD to move aggressively enough to experience many of the benefits of improved contracting now being realized in the best commercial firms. As these benefits become apparent in DoD acquisitions, this approach to acquisition is likely to continue expanding in DoD.

Assumptions Regarding the Future of DoD Acquisitions

The future of services contracting can be predicted, with some degree of confidence, on the basis of assumptions flowing from current policies and trends. The most important of these assumptions, each of which is discussed in the sections below, are the following:

1. The volume and complexity of competitive sourcing will increase.
2. Best commercial practices will increasingly be adopted.
3. The identification and use of performance-based requirements will be emphasized.
4. Related requirements and functions will be consolidated for increased efficiency.
5. Flexibility in the acquisition process will be emphasized.

6. Multifunctional teaming during all phases of the acquisition process will be emphasized.
7. Effective performance measurement will increasingly be emphasized.
8. The promotion of socioeconomic policies through the acquisition process will continue to be necessary.
9. Resources will continue to be constrained.
10. There will continue to be an increased focus on total ownership cost.
11. The use of electronic commerce will increase.
12. Contractor support of military logistics functions will increase.

Each of these assumptions is discussed below.

The Volume and Complexity of Competitive Sourcing Will Increase

As used here, "competitive sourcing" is the introduction of competition into the provision of services. It includes both public–private competitions under the A-76 program and the subsequent recompetition of previously contracted services. Many of these acquisitions will increasingly encompass nontraditional approaches to acquiring complex services, including long-term, life-cycle arrangements. Others will involve services historically performed by the Government or functions that meet higher-level needs, such as purchasing computer power as opposed to making separate purchases of computer hardware and related technical support.

While inherently governmental functions will continue to be performed by Government employees, the fact that Government employees have traditionally provided a service does not preclude that service from competitive sourcing. Dr. John Hamre, Deputy Secretary of Defense, stated in 1998:

> We committed to compete 150,000 jobs. Just this morning the Defense Management Council met, and the plan now is for 237,000 jobs that we are going to compete.… We're a little behind, to be honest, but we are very strongly committed and we've actually gone to a much greater commitment to competitive sourcing.[7]

Recent legislation is contributing to this shift toward competitive sourcing. The U.S. Code, under "Contracting for Performance of Civilian Commercial or Industrial Type Functions" (10 U.S.C. §§ 2460 to 2474), requires DoD to procure supplies and services from private-sector sources whenever those sources can provide them at a lower cost. In addition, the Federal Activities Inventory Reform Act of 1998 (Public Law 105-270) provides a process for identifying Federal Government functions that are not inherently governmental.

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[7] Deputy Secretary Dr. John Hamre—press briefing, 8 October 1998.

To achieve the goals established by the Deputy Secretary of Defense and implement this legislation, DoD will need to be innovative—not only in how it contracts for services, but in identifying and leveraging competitive opportunities. For example, maintenance work that has traditionally been performed by Government workers on DoD bases might be performed more efficiently at sellers' facilities. Furthermore, perhaps the equipment being maintained need not have been purchased at all, and instead, the overall outcome itself should be the solution acquired. For example, rather than buying engines and related maintenance, the optimum performance-based solution might be to buy flying hours. The challenge to DoD acquisition and requirements communities—together as a multifunctional team—will be to break out of the traditional contractual relationships and forge agreements that remunerate on the basis of a predetermined performance measure. With this break from traditional contractual relationships comes a shift toward the increased adoption of best commercial practices.

Best Commercial Practices Will Increasingly Be Adopted

Individuals across the defense acquisition community have championed the adoption of commercial business practices with significant success. Indeed, many streamlined practices, such as e-commerce, fast-tracks for simple purchases, and call centers for supplier inquiries, are already being practiced within the defense acquisition community. Success is evidenced in an emerging database of best practices on linked websites such as the Navy's Services Contracting Desk Guide.[8]

Best practice of any kind—commercial or Government—is obviously worth monitoring and emulating where it can be effectively transferred and still serves the goals of the organization receiving it. Best *commercial* practice deserves particular attention here for three reasons.

- First and foremost, a true revolution in business affairs is under way in the commercial sector, particularly with regard to the ways that buyers and sellers organize their relationships with one another to generate value together. The Secretary of Defense has clearly stated his intention to start a similar revolution in DoD. What better place to look for ideas than the place where the revolution is already well under way?

- Second, DoD has not developed the habit of looking for ideas beyond its traditional boundaries. DoD is actually quite good at monitoring lessons learned about its own operations and applying them where appropriate. An integral part of the commercial revolution in business affairs is the habit of becoming "outward looking"—understanding your environment and what you can learn from it. You cannot simply import new ideas willy-nilly from that environment without adapting them to your own organization's priorities. But the best commercial firms have learned to look outside themselves for ideas they can adapt to their needs and then import.

[8] This guide is at www.abm.rda.hq.navy.mil/sc_guide.

- Third, acquisition reform is ultimately about getting more from DoD's external sources than it has gotten in the past. That is what a significant part of the commercial revolution in business affairs is about as well. To get the most from its suppliers, DoD must learn what suppliers are learning about dealing with commercial buyers. To get access to the best providers, it must find out who they are and how they organize their affairs with buyers to become such good providers. That is, to get the best service possible, DoD must simply go to the providers who supply the best services and find out how they do it. DoD cannot do that without exploring best commercial practices directly.

Best commercial practices offer a wealth of ideas about how to write performance-based SOWs and how to execute performance management. DoD should not abandon its already considerable skills at learning about such things from its internal success stories, but it should learn how to seek relevant success stories elsewhere as well.

Commercial practices can enhance the delivery and effectiveness of services. The commercial sector optimizes supply chain management by fostering partnerships with strategic suppliers. A lean supply chain is tomorrow's objective: "Resources will be increasingly shared between highly interdependent firms that rely on each other as customer/suppliers to maximize value-added contributions and reduce duplication of resources."[9] Such relationships provide opportunities to increase the predictability of the workflow, reduce business risks, improve productivity, and develop a culture in which attention to the bottom line drives continuous improvement.

The Identification and Use of Performance-Based Requirements Will Be Emphasized

Performance-based contracts that maintain quality at reasonable prices are one technique that DoD can use to integrate and leverage best commercial practices into its operations. However, DoD faces significant challenges in this area—training the community to write performance-based contracts and activating the organizational culture shift necessary to manage performance under such contracts.

Nonetheless, the increased use of performance-based contracting acts as an incentive for sellers to be innovative in exercising their capabilities and skills in determining how best to perform work. With performance-based transactions, the seller is motivated to increase the economies and efficiencies of a function or operation.

Properly drafting performance-based requirements and measuring a contractor's performance are the keys to achieving these benefits. DoD must resist the inclination to tell a contractor how to meet DoD's needs. Instead, DoD must describe its needs in

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[9] Philip L. Carter, Joseph R. Carter, Robert M. Monczka, Thomas H. Slaight, and Andrew J. Swain. *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast.* Tempe, AZ: Center for Advanced Purchasing Studies, 1998, p. 28.

such a way that the contractor's performance will achieve the intended results. DoD must also employ appropriate contractual mechanisms to manage the work.

Related Requirements and Functions Will Be Consolidated for Increased Efficiency

Workload consolidation is another way to effect efficiency via changes to the requirements process. Workload consolidation results when two or more requirements for supplies, services, or construction are combined into a single procurement. Historically, requirements were satisfied using short-term, frequent, and administratively expensive contract vehicles. Through the use of consolidated requirements and reasonably long-term business arrangements, cost-effective acquisition management can reduce the internal costs associated with the procurement process and encourage more competitive pricing among offerors. DoD must (1) design procurements that satisfy consolidated agency needs most economically without unduly limiting competition, and then (2) manage the resulting contracts to ensure the performance level anticipated without imposing unanticipated administrative burdens on DoD or the provider. In particular, DoD should make sure that such consolidations do not have unintended effects on subcontractors that adversely affect their performance or DoD and the prime contractor's management of them. Unanticipated burdens could reduce the willingness of providers to participate in such arrangements in the future and thereby reduce effective competition for such services.

Workload consolidation has a variety of advantages—single-point responsibility for related supplies or services, reduction of acquisition actions, volume discounts, and, depending on how the procurement is structured, shifting of the workload to the contractor. On the simplest level, instead of stocking office supplies on its own, the Government may contract with an office supplier to carry the inventory on the Government's behalf. This example leads to a second challenge of workload consolidation: small businesses that supply only one or a limited number of the needed office supplies may be unable to compete for the consolidated requirement. DoD will continue to face choosing the convenience of contracting with a single source for a variety of supplies and services without unduly excluding small businesses. Flexibility in the acquisition process will be increasingly emphasized as a way to meet both objectives.

Flexibility in the Acquisition Process Will Be Emphasized

The emphasis in the acquisition process will continue to be the achievement of better, faster, and cheaper support to the warfighter by searching for creative solutions Thus, the acquisition workforce will continue to be empowered to use more flexible tools.

Among the increased responsibilities that accompany more flexible acquisition practices are ensuring that

- Services are acquired on a best-value basis
- Orders under the various indefinite delivery, indefinite quantity contracts (for example, Government-wide Agency Contracts and Federal Supply Schedules) are properly awarded
- The less formalistic methods of exchanging information during an acquisition are not abused
- Mistakes and abuses that are likely to occur result in lessons learned rather than the imposition of procedural safeguards that ultimately cost more than they save

It is essential that the discretion vested in the workforce by policies such as Federal Acquisition Regulation 1.102(d) (allowing any strategy that is not prohibited), DoD Directive (DoDD) 5000.1 (encouraging innovative practices), and DoDD 5000.2-R (not mandating a process but providing a model) be exercised with skill. One way to achieve the skill level necessary is to deliver training to multifunctional teams.

Multifunctional Teaming During All Phases of the Acquisition Process Will Be Emphasized

All functional experts, including those who represent the sellers, must be considered "stakeholders" (albeit unequal) to achieve the most effective acquisition team. The integration of functional experts (for example, contracting, technical, and quality) has been called for since mid-1995 under Federal Acquisition Regulations and appropriately labeled the "Acquisition Team" for the new "Federal Acquisition System."

The multifunctional acquisition team provides a service that is needed to support agency missions. To be successful in the long run, personnel from all acquisition functions—particularly acquisition and requirements personnel—must participate in teams. While many recent DoD policies have emphasized that teaming is essential to the success of acquisition, continuing to push for group cooperation while protecting the public interest will be an ongoing challenge. Performance measurement will serve as one source of checks and balances to ensure the success of multifunctional teaming and other acquisition initiatives.

Effective Performance Measurement Will Increasingly Be Emphasized

Performance management is not an entirely new process in contracting for services. However, successful performance management techniques for services contracts are not employed widely enough to provide confidence that customers are satisfied with the services performed.

The key to performance management is to develop an acquisition strategy that successfully mitigates risk and clearly states contract requirements in measurable performance terms. An associated QAP is developed to ensure that the delivery of services proceeds in accordance with performance standards designated in the performance-based SOW and identifies methods that will be used to monitor essential aspects of service delivery. Key surveillance methods include inspections and customer surveys. Surveys are a particularly useful performance measurement tool because they can provide a balanced technique for assessing stakeholder views. Through positive and effective training, the multifunctional team can master the art of successful performance measurement. Focus groups and Delphi studies can also be useful.

The Promotion of Socioeconomic Policies Through the Acquisition Process Will Continue to Be Necessary

While the future will bring numerous changes such as those already discussed, some traditional acquisition goals will remain unchanged. As a key example, Government acquisition spending will continue to be used to foster socioeconomic goals. Small businesses will be encouraged to participate in Government acquisition. Goods from the United States and its trading partners will be preferred. Economically distressed areas will be targeted. The ways and means by which the acquisition process is used to forward these policies may change. However, the acquisition workforce will continue to address these issues.

Resources Will Continue to Be Constrained

Another issue that will remain indefinitely is the need to accomplish the acquisition job better, faster, and cheaper, with fewer resources. Most important, even if the trends in defense spending were to reverse, the focus would continue to be on doing the most with available resources. The recently proposed increases in defense spending and governmental surpluses are not targeted to increase the acquisition workforce. Appropriately, pressure to minimize resources devoted to support functions—including acquisition—will always exist. One way of meeting these demands is through a shift to total ownership cost.

There Will Continue to Be an Increased Focus on Total Ownership Cost

Effective, best-value procurement decisions cannot be made on the basis of short-range analyses. In particular, understanding the costs of acquisitions to the nation throughout the product's life and its disposal is key to ensuring the best acquisition decisions.

"Total ownership cost" comprises an item's or program's total cost to the Government, including the costs of research and development, investment in mission and support

equipment, initial inventories, training, data, facilities, operation, support, disposal, demilitarization, detoxification, and/or long-term waste storage. Continued and increased focus on total ownership cost is necessary to provide DoD with a comprehensive and practical financial picture. The acquisition strategy and decisions made early in the acquisition process will impact total ownership. The continued emphasis on total ownership cost is yet another trend toward the future of DoD acquisition.

The Use of Electronic Commerce Will Increase

Acquisition changes will result not only from a better understanding of total ownership costs, but also from the technology improvements that are drastically affecting both Government and private-sector business. The explosion in information systems technology has fostered a new era in acquisition, characterized by an overarching objective of maximizing the transaction speed and efficiencies achievable through electronic commerce. Indeed, the top-rated future prediction by the National Association of Purchasing Management (NAPM) is that the use of electronic commerce technology will accelerate over the next 10 years.[10] Electronic commerce promises the reduction of repetitive transactions and an increase in the accuracy of records.

This trend and the previously addressed assumptions revolve around the acquisition process itself. In contrast, the final assumption applies to the main purpose of the defense acquisition community: supporting the warfighter.

Contractor Support of Military Logistics Functions Will Increase

The modern, highly mobile warfighter relies heavily on state-of-the-art, efficient, and responsive supply, communications, and transportation services to meet security threats. Thus, there is a need for an integrated, focused, and streamlined logistics community (including technology, acquisition, sustainment, and infrastructure management) that can provide the following:

- Total asset visibility with predictive and anticipatory logistics support
- Rapid and assured sources of supply, to support mobility at low overall costs
- Dramatically reduced in-theater footprints to enhance mobility

Visibility of assets is one issue that requires improvement. During Operation Desert Shield/Storm, operational units placed thousands of duplicate orders because they did not know the status of their previous requisitions—particularly those for critical

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[10] Philip L. Carter, Joseph R. Carter, Robert M. Monczka, Thomas H. Slaight, and Andrew J. Swain. *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast.* Tempe, AZ: Center for Advanced Purchasing Studies, 1998, p. 26.

items. As less reliance is placed on Government-maintained inventory, customers' appraisals of their order status will become even more important. This is only one small aspect of the continuing significant changes needed to support warfighters in the 21st century. Acquisition personnel must be sensitive to these changes and work to bring the system in line with what promises to be a changing logistics environment.

IMPLICATIONS FOR THE ACQUISITION WORKFORCE

The increased reliance on services contracts in the environment described above will demand the application of good business judgment in all acquisition decisions. DoD personnel will have to apply this judgment in an evolving DoD policy environment, as formal acquisition policy continues to adjust to reflect and accommodate the trends above. DoD personnel will have to maintain an ability to take full advantage of the new options that formal policy provides as that policy evolves. To effectively acquire and manage services efforts, defense acquisition professionals will also need to operate effectively in a multifunctional team environment. There, they must exercise their authority to carry out acquisition requests in the most efficient and effective way. DoD personnel will apply Government policy and best practices differently when they buy services as opposed to supplies and, in fact, even when they buy different kinds—or classes—of services.

Classes of Services Contracts

Four basic classes of services are relevant to innovative acquisition practices and, in particular, to new training to support new acquisition policies and practices. They include simple operational-level services, complex operational-level services, complex system sustainment services, and other complex service activities. Each of these classes is introduced below. Chapter 6 details recommendations related to each of the three complex services categories discussed here. In particular, Chapter 6 suggests that DoD develop new training tailored to each class of complex services.

SIMPLE SINGLE-FUNCTION SERVICES

Simple single-function services are individual functional activities at one location, relevant to one or more of the following:

- Base operations (for example, building or service vehicle maintenance)
- Services provided to personnel (for example, clubs or libraries), and generic business services (for example, audiovisual or conference services)
- Specific overhaul (for example, a midlife upgrade or 2000-cycle rebuild) or repair actions on weapon systems and reparable parts (for example, radar subassemblies or engine modules)
- Management services to a single office

Such services typically require familiar, routine acquisitions that do not change much over time; the easiest way to structure a new acquisition is to emulate one that has been tested in the past. As a result, the skill levels of acquisition personnel typically are not high for such services. They are higher for larger contracts and more complex or higher-risk services and, hence, typically higher for depot-level logistics than for base-related services.

Complex Operational Services

Complex operational services are individual functional activities that are

- Base-related, personnel, or generic business service activities (such as the simple single-function services described above) provided at many locations (for example, travel or calibration services), or
- Multiple activities provided in a single package at one site (for example, integrated facility or airfield management)

The acquisition of such services is customized to each aggregation of activities in question; as appropriate aggregations change over time, so do the acquisitions. Formal program management becomes more desirable as a set of services purchased grows in value and complexity. Because complex operational services are more complex than simple single-function services and require the delegation of many lower-skill responsibilities, they typically require higher levels of skills for the DoD personnel involved in their acquisition.

These personnel represent a broad set of skills and organizations. Many of these personnel come from functions such as civil engineering, supply, and maintenance that are not normally associated with the acquisition workforce, especially at the base level. Multifunctional teams responsible for the acquisition of such services should include Government personnel from all of the functionals (technical representatives for specific services) relevant to defining and monitoring the performance of these services. Because the acquisition of these services typically is competitive, the teams must conduct appropriate market research to understand how to structure competitions that best exploit the capabilities of and limit problems in the commercial marketplace.

Complex System Sustainment Services

Complex system sustainment services involve one or more of the following:

- CLS or total system performance responsibility (TSPR) for a weapon system fleet (for example, C-21)
- Leasing assets with associated support agreements (for example, engines)
- Buying the services of assets that DoD has traditionally bought and maintained itself (for example, high-end computers or diagnostic equipment)

The contracts for such services are typically even more tailored to the particulars of the services than are contracts for the previously discussed categories of services. Because they typically involve services closer to DoD's core activities, these contracts present higher perceived risks. Thus, formal program management is essential.

These considerations point to the need for highly skilled DoD personnel to be involved in such acquisitions. The Government acquisition team members for this type of procurement are much more likely to be part of the acquisition workforce—as defined by DAWIA—or otherwise familiar with, and involved in, acquisitions on a routine basis. Functional expertise here would include engineering, program management, acquisition logistics, and financial management—all part of the DAWIA acquisition workforce. Contracting personnel are, of course, also included.

The acquisition of complex, system sustainment services is more likely to be sole source than are the acquisitions for the previously discussed categories of services. The unique skills associated with developing, manufacturing, and modifying a weapon system are difficult to replicate. If a decision is made, consistent with current DoD 5000 series guidance, to have CLS for the life of the weapon system, then the probability is much greater that the procurement will be directed to the system developer. Thus, the acquisition team should include contractor representatives while remaining consistent with Government rules and regulations.

Other Large, Complex Services Activities

Other large, complex services activities include contractor provision of health maintenance services (for example, TRICARE), information services (for example, integrated logistics information systems), telecommunication services (for example, satellite services), and the like. These activities can have extremely complex organizational environments and tend to involve sophisticated services. TRICARE illustrates the complexities involved.[11] The TRICARE Management Activity resides in the Office of the Secretary of Defense, where it translates input from the Assistant Secretary of Defense for Health Affairs and from ever-changing legislation into requirements for health maintenance services. It also designs and administers contracts. The surgeons general of the services develop additional requirements and administer regional requirements. Each of the services also separately maintains hospitals that provide some of the services delivered through TRICARE. This "system" executes hundreds of major procurement actions, affecting billions of dollars, each year.

Acquisition reform can potentially facilitate substantial improvements in TRICARE's acquisition of health maintenance services. A recent procurement management review[12] recommended (among many other things) implementation of formal program management, increased emulation of analogous commercial contracts, a general simplification of contracts, greater reliance on performance standards, efforts to

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[11] This discussion draws on the DoD Procurement Management Reviews of the Aurora Field Activity of the TRICARE Management Activity, Supplement 1, 21 April 1998.

[12] Ibid.

improve cradle-to-grave coordination of the acquisition process, increased use of multifunctional teams to manage problem solving, and a general upgrading of the skills and experience of the people responsible for acquisition. The services study group concurs with these recommendations.

Training will obviously be an integral part of such an effort. To be effective, it should convey the key elements of PBSC in a substantive context that addresses the issues most important to health maintenance services. Similar statements apply to information services, telecommunications services, and other complex services of this kind. The study group has drawn up broad guidelines for such training.

Complexity of Services Contracts

Predictions for the commercial sector indicate that transactional work, such as that currently handled at the simple operational level, will increasingly be automated. The NAPM—which has dubbed low-value, high-volume transactions as "tactical" purchasing—predicts that 50 percent of such work will be omitted in the near future by automation, with the remainder addressed through regional contracting arrangements.[13] Such automation will allow, for example, broader use of commercial price lists, electronic commerce, vendor management of materiel, and purchase cards—often in combination. Not only is the nature of the work supporting services contracts expected to change in the future, but also the number of DoD acquisition professionals is expected to continue to decline. Thus, fewer individuals must manage increasingly more complex services arrangements.

Hence, complex acquisitions should be the focus of training for the PBSC environment. Large, complex acquisitions offer the opportunity for the greatest gains, especially because they benefit from more active involvement of personnel from individuals who are involved in the acquisition but whose career-development programs do not require training or accreditation in acquisition.

Furthermore, DoD has extensive experience with smaller, single-function acquisitions. It has developed well-tested practices and procedures to execute such acquisitions. For the most part, the established methods work well to achieve the goals DoD has set for itself in the past. Innovative methods can improve performance here somewhat, but the absolute value of gains will be small in individual, single-function acquisitions, making it hard to justify new training customized to support the design of new contracts of this kind.

In addition, DoD has strong evidence, from best purchasing and supply management practice and from its own experience with the application of OMB Circular A-76, that the Department can substantially improve the performance and reduce the total ownership cost of the services it buys. The evidence indicates that DoD can effect

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[13] Philip L. Carter, Joseph R. Carter, Robert M. Monczka, Thomas H. Slaight, and Andrew J. Swain. *The Future of Purchasing and Supply: A Five- and Ten-Year Forecast*. Tempe, AZ.: Center for Advanced Purchasing Studies, 1998, p. 27.

such improvements and cost reductions by aggregating its buys to cover more sites for a given activity, more activities at a given site, and/or more routine, day-to-day management responsibilities within a single contract. This evidence supports a strong effort to move, where appropriate, away from single-activity contracts toward large, more complex contracts. DoD must support such a change with effective training from the beginning. The potential gains can be great enough to justify a significant investment in new training.

A Multifunctional Teaming Environment

The increased reliance on services contracts in the environment described above will demand the application of good business judgment in all acquisition decisions. To effectively acquire and manage services efforts, Defense acquisition professionals will need to operate effectively in a multifunctional team environment. There, they must exercise their authority to carry out acquisition requests in the most efficient and effective way possible.

Consistent with the findings of the 912(c) DoD Commercial Business Environment study team, acquisition professionals will continue to move away from an environment where decisions are made piecemeal within functional silos to an environment where multifunctional teams—involving customers, suppliers, and acquisition professionals—make ever better-aligned, higher-quality decisions. As this evolution continues, all participants will focus less on their functional priorities and more on the proper alignment and coordination of the supply chain relevant to a service acquisition. They will ask how each step in the chain can adjust to deliver better, faster, cheaper services to the final customers of these services. Hence, the foundation of this new environment is the end-to-end management of the acquisition process. High-quality, responsive decisions and the elimination of rework and waste are the results of effective "upstream" planning that involves all functions, customers, and suppliers in bringing to the surface relevant facts, data, interests, and opinions before making decisions.

Because teamwork is essential to the design and execution of performance-based services contracts, similar teamwork is critical to training. Teams that will work together should train together so that they share a common vision as a team, despite their organizational differences, and so that each of their members understands where he or she stands relative to others on the team in terms of skills, responsibilities, and relative capabilities.

SUMMARY

The managers of the defense acquisition workforce will need to adjust job requirements and reevaluate incentives for qualified individuals to pursue acquisition careers. The future acquisition environment will require an aggressive training and retraining program. Team building, market analysis, performance-based management, and adroit use of information technology are some of the obvious areas upon which those who

develop the acquisition workforce of the future must focus. Judgment will, as always, distinguish the successful business managers. The areas in which they will need to exercise their judgment are growing rapidly.

Good business judgment will require ability to balance the interests of all stakeholders, including performance and on-time delivery to the warfighter customer, value and fairness to the public, and the well-being of supplier-partners.

Chapter 3

Attributes of Organizations With Successful Services Contracts

BACKGROUND

DoD acquisitions traditionally fall into four distinct organizational acquisition categories:

1. Product or system acquisitions, which focus on the acquisition of new weapon systems, systems to support them, modifications of these systems, and initial spare parts and logistics support relevant to their deployment in the force.
2. Sustainment acquisitions, which focus on the acquisition of maintenance, repair, and overhaul services (including related engineering and information management tasks) and on the acquisition of replenishment spares.
3. Installation or base acquisitions, which focus on the acquisition of a very broad range of goods and services, including construction services, used at the base level.
4. Other, more specialized, large, complex services. Health care, telecommunications, wartime transportation, information, and other inherently complicated service acquisitions typically involve complex technologies and complex organizational arrangements.

Those organizations in category four tend to be unique and difficult to characterize. The other three categories tend to have more similar characteristics and similar organizational cultures.

Within these categories, those organizations most responsible for developing and acquiring new weapon systems have generally been considered to be in the forefront of acquisition reform. Furthermore, when model acquisitions are identified, weapon systems tend to receive a disproportionate share of the attention. This applies whether they are acquiring end products of hardware (for example, the DDG-51 Arleigh Burke destroyer, the M2/M3 Bradley Fighting Vehicle, or the B-2 stealth bomber) or services (for example, CLS for the T-45, the Army Systems Engineering and Technical Assistance Program, or flex-sustainment for the C-17). Certain attributes appear to contribute to the success of model acquisitions like these.

CENTRAL ATTRIBUTES

The following attributes appear to characterize successful procurements:

- Strong program management that can integrate and prioritize conflicting requirements
- A highly skilled functional workforce
- A team ethic—both within the Government and including the contractor—of working willingly together toward a shared goal: long-term relationships with world-class companies that are recognized as having greater expertise than the Government at producing the desired end product
- Effective and proactive performance management of the awarded contract
- Willingness, on the part of everyone involved, to embrace change in a positive and natural manner

In each of the three organizational categories, services acquisitions (as opposed to "hardware" acquisitions) are growing—both in dollars and in importance to the mission. This growth is due, in part, to a reduction in the hardware portion of the defense procurement budget. But equally important is the redefining of products. Where spare parts or engines were purchased in the past, the focus now is on the end product, which contributes to mission capability. Similarly, CLS for major weapon systems used to be an interim fix until the services developed an organic, in-house capability. Now, CLS is the preferred method of support, generating larger numbers of, and dollars to, service contracts. Likewise, at the installation level, the focus on OMB Circular A-76 for competitive sourcing has led to a reduction of in-house personnel and a significant increase in the acquisition of services.

From an acquisition perspective, product or systems acquisitions have generally been considered the most complex, have drawn on the most sophisticated contracting mechanisms, and have used the most senior, skilled, and experienced acquisition personnel. Installation acquisitions typically lie at the other end of the spectrum. These have historically been small, single-function acquisitions employing simple, routine contracting mechanisms and a technically specialized but narrowly focused workforce with lower grades and relatively limited room for upward mobility.

The implementation of acquisition reform has temporarily heightened the distinctions among the three organizational acquisition categories. This is partially because DAWIA, which was designed to increase the professionalism of the acquisition workforce, bypassed much of the installation population involved in acquisitions. With the exception of contracting personnel, most personnel involved in installation acquisitions are not given incentives to attend acquisition classes, nor are they funded by DAU to receive such training. The traditional civil engineers and supply and maintenance troops have superb functional—but not acquisition—skills.

Nonetheless, these individuals are responsible for developing requirements and providing quality assurance evaluations of contractor performance. Furthermore, an effective contract requires input for the full continuum, from requirements generation through evaluation of contractor performance.

When developing training plans to support the implementation of acquisition reform for services of all kinds, DoD should take advantage of its system and product acquisition activities that people already know. DoD should draw on such existing knowledge and capabilities to teach the rest of the Department how to adjust its services acquisition activities appropriately. The sections below summarize important differences among the three organizational acquisition categories and discuss their relevance to training policy.

PRODUCT AND SYSTEM ACQUISITION

Product and system acquisition has traditionally been given a special priority in DoD, which designs and executes acquisitions for extremely important, complex, and costly activities—indeed, the most complex technological systems in the world. In this realm, DoD succeeds in generating a level of performance from its contractors that no one in the commercial sector even attempts. The Department does this despite the fact that its contractors have a much deeper and more detailed technological understanding of the services being offered than do the DoD personnel involved.

To accomplish such acquisitions, DoD has used many of the tools now associated with acquisition reform—formal program management, long-term relationships, performance-based goals, multifunctional teams, and highly skilled and senior (that is, GS 12–14 equivalent) personnel from many functions. The Department has used experts from every functional area within the traditional acquisition workforce, with program managers leading teams of engineers and contracting, financial, and configuration managers toward defining and satisfying requirements with the requiring operational units. Such teams interface effectively and work closely with the cognizant Defense Contract Management Command (DCMC) office to ensure timely insight and understanding of contractor performance.

The Department has also created a local culture that embraces change and understands the risk associated with it, and has developed effective ways to live with this risk, monitor it, manage it, and limit its negative effects. Formal project management, in particular, provides an effective way to develop and coordinate requirements, manage the risks associated with pursuing them, and manage the highly skilled team that ultimately makes success possible. This tool gives the project manager a personal stake in the performance of the project as a whole and a structure that he or she can use to communicate performance goals to the team.

DoD has focused its initial implementation of acquisition reform on organizations with these cultural perspectives. Acquisition reform is pushing these and other issues even further, challenging DoD to improve its already impressive acquisition

capabilities. As product and system acquisition activities have begun to implement more performance-based acquisitions, and other acquisition reform streamlining initiatives have been introduced, attention has begun to shift to the next largest area for gaining maximum return on investment: sustainment.

SUSTAINMENT

With fewer and fewer large-dollar hardware buys, and more and more of the DoD budget going toward sustaining and modernizing existing resources, it is critical that sustainment activities successfully embrace the benefits of acquisition reform. The traditional acquisition of maintenance, repair, and overhaul services for specific systems and repairables has typically been simpler and more stable than most system acquisitions. The original equipment manufacturer usually specifies technical orders and often provides sustainment support through sole-source contracts. Acquisition plans, requirement processes, and contracts for these services have been more standardized and changed less over time. As a result, sustainment has been perceived as requiring less-skilled, lower-grade personnel (that is, GS 9–12 for item managers, equipment specialists and logisticians; and GS 9–13 for those who issue and administer contracts) than product and system acquisition. These personnel learned to perform standard processes well and were rarely asked to change their procedures or products. Such an environment encourages compliance with standards rather than innovation or improvement.

However, new, system-oriented approaches to sustainment are developing and becoming more common. CLS and TSPR acquisitions move the focus of sustainment from individual maintenance actions to total system support for whole end items. These approaches make contractors more responsible for support actions close to the warfighter, raising the level of importance of these contracts. In addition, they dramatically increase the dollar value of individual acquisitions and require broader integration of DoD and contractor information systems, materiel management systems, and mechanisms for handling unexpected events quickly, predictably, and reliably. Developing more creative and effective ways to properly provide contractor incentive in this environment—while still protecting the Government interests—presents a special challenge. Such an endeavor requires a closer interface and communication with DCMC. Also necessary is formal program management to ensure careful planning, appropriate management of a more highly skilled, integrated, multifunctional team, and closer ongoing communication and coordination with the contractor (often the original equipment manufacturer).

These new approaches to sustainment were not part of the initial acquisition reform initiatives. Nonetheless, acquisition reform simplifies the implementation of these approaches and provides ideal seeds of change. By taking a more systems-oriented approach, these new sustainment acquisitions offer excellent examples of how maintenance acquisition increasingly will look in the future. Lessons learned and experienced personnel from multifunctional groups should play an active role in training to improve the initial CLS/TSPR contracts. Groups like the Request for

Proposal Support Office in the Air Force Materiel Command are already playing this role and provide a good example for training activities elsewhere in DoD.

INSTALLATIONS

Services acquisitions at the base operations level are typically much smaller and simpler than those in sustainment, and far less complex than those in system and product acquisition. They typically address lower-risk, single-function activities and use well-tested work statements to tell contractors exactly what DoD expects. Requirements flow directly from relevant base-level support workloads. Installation acquisition plans typically call for competitions focused on cost comparisons and QAPs that require close Government attention to details of execution.

Personnel working on these simpler services acquisitions have not been perceived as needing a breadth of experience or multiple skills; they are typically at entry to mid-level acquisition pay grades (that is, GS 7–11 unit QAEs and operators). Many of these personnel reside outside the traditional acquisition workforce and have only very general knowledge about acquisition reform. DoD functionals outside the Department's traditional acquisition community integrate services provided by many individual providers, and formal program management typically plays no role in such oversight.

Nonetheless, selected elements of acquisition reform have penetrated this environment. Indeed, various forms of simplified acquisition and application of purchase cards are now commonplace. Yet, more challenging initiatives to incorporate commercial practice and move toward performance-based acquisition are rare. In fact, given the typical size of a base operations contract, such initiatives are difficult to justify because small contracts cannot generate enough improvement to justify the investment in innovation—even if it yields dramatic improvement. Such investment will make sense only as installation acquisition follows the lead of creative sustainment organizations and moves toward larger, more integrated acquisitions. This presents a special challenge at the base level, because DoD relies heavily on base-level contracts to satisfy its commitments to support small and disadvantaged businesses.

Acquisition reform faces other unique challenges at the base level. As noted above, many personnel associated with acquisitions in this environment are outside the traditional acquisition workforce and hence beyond DAU's charter to educate and motivate. Many of these functionals have spent their careers precisely executing the tasks that their contractors will provide. This experience gives them great confidence that they know the best way to execute a task and have a professional obligation to communicate this to the provider, while DoD's elaborate structure of internal instructions, regulations, and manuals encourages this perspective. However, this perspective makes it hard for functionals at the operational level to appreciate the value of leaving the details of execution to the provider; in fact, hard experience with low-cost providers has taught these functionals to watch their providers like hawks. Furthermore, in acquisitions pursued through OMB's Circular A-76 (which are most

common at the base level) best-value source selection faces unique difficulties. These difficulties result, in part, from the current process, which gives the Government most efficient organization the opportunity to essentially technically level their proposal, and the award ultimately goes to the lowest-cost technically acceptable offeror.

Another aspect that cuts across all three organizational acquisition categories but hits especially hard at the installation—and, to a lesser degree, sustainment—levels is the ability to hire and retain qualified personnel. The previously addressed perception that the acquisitions in these organizational categories are less complex than traditional "systems" acquisitions has contributed to lower grades, lower pay, and lower professional prestige. The limitations imposed by the Government personnel system have resulted in the loss of many of the Government's best and brightest to industry, where they are rewarded more consistently for their capabilities. To be able to attract and retain the people who are able to focus on the output (rather than on the process) via performance-based thinking and to integrate differing priorities in a consistent manner, greater flexibility in the Government's personnel system is needed. DoD's ongoing test of the "Acquisition Demonstration" pilot project is a positive step in this direction. However, the project applies only to a small number of headquarters and product centers—and not to the depots or installation workforce.

From a "teaming with contractors" perspective, there are cultural differences between product centers and sustainment and installation organizational categories. In normal product-center systems acquisitions, personnel expect to have long-term relationships with their prime contractors. In this sense, the contractor is much more accepted as a team member. However, sustainment centers and installations tend to have more of an arm's-length relationship with contractors. At sustainment centers, a contributing factor to this perspective results from the previous guidance to "break out" spares from the prime contractor to encourage competition. Similarly, installation contracts tend to be of shorter duration, and such buys are most likely to be competed—often on a "low bidder wins" basis. Neither of these factors is conducive to developing a long-term arrangement on a best-value basis with the contractor.

PRIORITIES FOR TRAINING

The culture of acquisition at most product and sustainment centers has already undergone significant positive changes. Much effort, including training, has gone into these centers for effecting acquisition reform. Teams involved in acquisitions in these centers, being mainly within the DAWIA workforce, are given training at DAU. This training already incorporates performance-based thinking. For these reasons product or system centers are not a priority for new training initiatives. DAU will examine the results of this study and further incorporate its findings into the present curriculum.

Simple acquisitions at the installation level are similarly not a priority for new training. Automation is rapidly overtaking personnel functions in these acquisitions. For those functions that remain, the benefit of change is outweighed by the cost of developing and delivering effective training.

The focus of new training initiatives is on the three remaining types of acquisitions

1. Complex acquisitions at the installation level
2. Sustainment Center acquisitions
3. Other special large, complex acquisitions

Of these priorities, the group decided to expend the greatest effort toward improving complex acquisitions at the installation level. First, it was thought that a minimum of investment would produce the maximum result here. Second, since most of those involved in acquisition teams for these types of buys are not part of the acquisition workforce, they have no training available from DAU or, for that matter, from any other source.

The next three chapters will describe the group's findings for each of the three priority types of acquisitions.

SUMMARY

The differences among the organizational acquisition categories emphasize the importance of tailoring acquisition reform training to the Defense organization in which it will be applied. Nonetheless, all Defense acquisition personnel operate in a common regulatory environment defined by the FAR, and all share a common DoD culture. Installation personnel, like personnel in product or system and sustainment acquisition, are learning how to change and are experiencing the benefits that flow from acquisition reform. However, tailoring training to each environment—as well as to the supporting environment that rewards and provides incentives toward risk management—is an important part of effecting necessary changes.

DoD is a dynamic entity, and its various components and agencies face unique and challenging opportunities. As training courses are developed for the Defense acquisition workforce, it is important to facilitate the aforementioned cultural attributes that contribute to successful acquisitions. This goal requires the following endeavors:

- Strengthening and encouraging strong program management with an ability to integrate and prioritize conflicting requirements.
- Facilitating a highly skilled functional workforce as well as improving the education and professionalism of the workforce at the sustainment centers and installations. (While such upgrading typically results in higher Government service grade and salary levels—the smart "performance-based-thinking" decisions made by the improved workforce will pay dividends for both the warfighter and the taxpayer.)
- Effecting a greater team ethic of working willingly together toward a shared goal.

- Using more “best value” procurements and “past performance” evaluations to ensure that the Department does business with world-class companies that are recognized as having greater expertise than the Government at producing the desired end product.
- Participating in more teaming with DCMC and installation quality assurance evaluators and contracting officers’ representatives to ensure that the personnel tasked with evaluating contractor performance can understand the true requirements and make “performance management” their focus.
- Increasing the workforce’s willingness to embrace change in a positive and natural manner.

With these attributes and the proper training, the defense acquisition workforce will ensure on-time and on-cost fulfillment of warfighter mission requirements while providing substantial benefits to the American taxpayer.

Chapter 4

The Acquisition of Services in a Performance-Based Environment

INTRODUCTION

Performance-based acquisitions require a fundamental shift in how the acquisition and requirements communities, as a multifunctional team, conceive of, develop, and manage the acquisition process. Rather than focusing on how a provider executes a service, the team must think about why the ultimate customer for that service values the service and how DoD can state what the customer values in clear, documentable performance terms. Rather than studying the details of a traditional job analysis, the team must study the ultimate customer's actual requirements, which may differ dramatically from the "requirements" stated in formal DoD policy.

Example: A traditional job analysis might state that the lawn around an installation headquarters must be mowed and edged at least once a week (between appropriate dates) or mowed if it ever gets more than 3 inches high. The grounds maintenance team must use specified equipment, maintain that equipment on a specified schedule, and dispose of clippings in a specified way. Further details explain requirements and specifications for watering, fertilization, aeration, periodic reseeding, and so on.

A performance-based approach would say that the ground maintenance provider will ensure that the grounds around the headquarters meet the expectations of the commander, which may change, with appropriate notice, when a dignitary is expected. Professional standards exist to help the provider know what to expect; the provider then learns, from ongoing interaction with the commander's staff, about the commander's idiosyncrasies. The team must be able to state the "actual requirements" for a service in meaningful performance terms to ensure effective quality assurance. The traditional DoD approach seeks compliance with the detailed specifications that flow from a job analysis and then seeks specific, carefully calculated compensatory adjustments in the price paid if the provider does not follow instructions.

A performance-based approach typically fits the QAP to the requirements identified. In the example above, the requirement is closely linked to the commander's satisfaction level. One way to measure this is to ask the commander periodically and collect information about the satisfaction level. If the level of satisfaction slips, DoD and the provider sit down immediately to work out a recovery plan. Another way is to train a

professional auditor, whom the commander and provider hire jointly to measure performance. But again, poor performance leads immediately not to a price adjustment but to an action plan to overcome the poor performance. Good performance may be rewarded by the extension of the contract or a higher award fee; persistent, unameliorated, poor performance leads to early termination of the contract or a record of poor performance that affects future source selections.

A performance-based approach is different from DoD's traditional approach. It is tailored to the circumstances at hand to give the ultimate customer what is desired. This requires careful teamwork and supply-chain alignment, often including the active participation of the ultimate customer. It often requires finding ways to review inherently subjective "requirements" in objective, documented ways. As DoD moves in this direction, its acquisition-related personnel will benefit from developing a new mindset. New training will help.

Critical Elements of Performance-Based Services Acquisitions

Three critical elements are common to successful performance-based services acquisitions that accomplish the goal of supporting our warfighters better, faster, and cheaper. They are best commercial practices, performance-based SOWs, and performance management. Best commercial practices offer a wealth of ideas about how to write performance-based SOWs and how to execute performance management. As noted above, DoD should not abandon its already considerable skills in learning about such things from its internal success stories, but it should learn how to seek relevant success stories elsewhere as well.

The skill set (Appendix B) to instill a performance-based culture into the multifunctional teams is intended to give DoD personnel the ability to learn from best commercial practices, write performance-based SOWs, and execute performance management in a way that advances DoD's broad policy goals, including better, faster, and cheaper service and acquisition processes that preserve integrity, accountability, and equitable treatment for all participants.

Performance-Based Statements of Work

The performance-based SOW is the foundation for PBSC. The performance-based SOW specifies measurable performance standards (outputs) that are derived from a thorough job analysis. This analysis requires the team to identify and analyze the job outputs task by task. From these outputs, the team develops measurable performance standards that include appropriate quality levels. Contractor compensation and financial risk are based on successfully meeting these quality and performance standards.

Performance-based SOWs describe the required outcomes of the services sought and provide criteria for measuring and verifying performance, but they do not dictate the specific methods that must be used to achieve those outcomes. The key aspects of a performance-based SOW include

- A description of the expected output or outcomes
- A statement expressing the performance characteristics
- A definition of the environment in which the services are to be performed, including all internal and external organizational interfaces
- Measurement criteria that permit both contractual parties to gauge actual versus expected performance

A performance-based SOW used in the depot maintenance environment might base a successful repair operation on a 24-hour repair cycle. It might pay a bonus for repairs completed in less than 24 hours, pay for repairs that take 24 hours, and penalize the contractor for repairs that exceed 24 hours.

Several important points emanate from this simple example. First, collaboration between acquisition and requirements personnel—as part of a multifunctional team—is essential. Once these two groups have melded into a cohesive team, synergy will develop that enables a cultural shift to occur. Obviously, job analysis requires knowledge that only the requiring agency possesses, but performance-based contracting requires acquisition personnel to translate this analysis into unambiguous performance standards. This activity is crucial to the successful delivery of services, and it is arduous, time-consuming, difficult work. Only through training that focuses on a multifunctional team will DoD foster the permanent cultural shift that performance-based contracting requires.

Best Commercial Practices

The second critical element of successful performance-based services acquisition is the adoption of best commercial practices. DoD is working to capture the best the commercial world has to offer and fully apply it to meeting military needs. DoD is achieving this by breaking down barriers to the use of common processes and facilities, by encouraging the maximum use of commercial items, subsystems, and components in defense systems, and by incorporating the use of commercial best practices in all defense operations. A major tenet of acquisition reform is the need to marshal DoD’s efforts to utilize commercial sources fully and implement commercial practices in meeting defense acquisition needs where it makes good business sense. Acquisition reform initiatives that facilitate an increased reliance on the commercial marketplace and an integrated national industrial base are vital components in ensuring that DoD will continue to maintain the technological superiority of U.S. forces.

Market research is key to identifying the best commercial practices that DoD may employ to meet its needs. When a requirement involves a complex service or is likely to result in a costly procurement, the organization should perform a broad-based investigation of the commercial market to determine whether services are available to satisfy the requirement. If the commercial market is a potential source of supply, the market investigation should determine what practices are commonly employed to achieve efficiency and economy in commercial operations, what type of pricing structures are used, and what terms and conditions are customary. The market investigation should also identify the technology employed in the delivery of the services. Comprehensive market research will typically include a summary of market surveillance, an identification of potential sources, a survey of suppliers, a check of references (of other users and buyers), an evaluation, and documentation.

The object of market research is to determine how well a commercial service meets the agency's requirement. In those instances in which commercially available services do not satisfy the organization's need, the requiring activity has three options. First, it can relax the requirement to meet what is commercially available. The end user community is best poised to decide which, if any, part of a requirement it is willing to loosen. Second, it can investigate whether a vendor is willing to modify its services to meet the need. Third, if vendors are unable to satisfy the requirement, the organization requiring activity can look in-house for a solution.

Performance Management

Performance management is the third and final critical element of successful performance-based services acquisitions. The key to performance management is to develop an acquisition strategy that mitigates risk and states the contract requirements in performance terms. A QAP is the embodiment of this strategy. The QAP outlines the roles and responsibilities of the parties involved to guarantee that service delivery proceeds in accordance with the performance standards designated in the performance-based SOW. In effect, the QAP is a roadmap to ensure that the Government receives quality services as specified in the contract and pays only for services rendered at or above the acceptable level. A well-developed QAP also includes a surveillance schedule and methods used.

The surveillance plan is a vital component of any sound QAP. This plan allocates agency resources to monitoring the essential aspects of service delivery. Because contractor remuneration is tied to performance, it is critically important that considerable care be exercised with respect to the plan's development. Important elements to consider include task criticality, performance requirements and standards, surveillance methods, the availability and appropriateness of personnel assigned to evaluate quality assurance, and the consonance of surveillance value in relation to cost. Resource constraints are such that surveillance activities must be commensurate with cost and risk.

Surveillance plans usually define the surveillance method. Common methods include inspections (ranging from random to continuous surveillance) and customer surveys. Surveys are useful performance measurement tools because they can provide a balanced means of assessing stakeholder views. The four primary groups to survey are customers, vendors, employees, and managers. To achieve balance, the survey elicits the stakeholders' opinions on the parameters of service delivery, including quality, timeliness, and efficiency. The customer should use the survey's results in the feedback process to ensure that the service provider's performance improves.

The service provider may also be involved in this surveillance. As a stakeholder whose pay is tied to acceptable performance, the contractor needs to understand, accept, and agree to the terms of the surveillance. Obtaining contractor participation early in the process ensures that the contractor's own quality control plan dovetails with the Government's.

While performance management is not an entirely new process in contracting for services, it is not the customary approach, nor has it been bred into the organizational culture of DoD. However, through positive and effective training, multifunctional teams can master the art of performance management. The skill set laid out in Appendix B will make a considerable contribution toward bridging this cultural crevasse.

Chapter 5

Reaching for a Performance-Based Environment

INTRODUCTION

The previous chapters described assumptions concerning the Department's acquisition of services in the future and a basic list of knowledge and skills that we feel the acquisition workforce will need in order to operate effectively in that environment. This chapter describes current, readily available courses that could be considered to accelerate a transition to a PBSC environment. A more aggressive alternative for accelerating that transition is also proposed.

EXISTING SERVICES CONTRACTING COURSES

Numerous contracting survey courses include services as a subtopic. A more limited number of courses specifically address services contracting or related topics within the category of services contracting. Many of the existing courses are quite good. However, none of them treat by design the topic of services contracting as it is integrated within the defense environment. The courses' intent is to either generally survey topics relevant to the current services contracting environment or provide more limited training on a specific aspect of services contracting. Overall, existing courses are not designed to graduate acquisition professionals accustomed to working in multifunctional teams, writing performance-based SOWs, and managing the performance of services.

There are a variety of services contracting courses available. The courses essentially operate under five guises:

1. Surveys or introductory courses in services contracting
2. Courses in services contract law
3. Courses specific to the Service Contract Act
4. Courses in PBSC
5. Courses in A-76 competitive sourcing

These general categories of courses are discussed in more detail below. (See Appendix A for a list of existing courses.)

Introductory Services Contracting Courses

A course common to both Government and private-sector curricula is the survey or introduction to services contracting. Variously entitled “Introduction to Services Contracting,” “Contracting for Services,” and “Service Contracting,” these courses are offered by Government sources such as DAU, private colleges and universities such as the University of Virginia, and commercial training organizations such as Management Concepts, Inc.

Typically, these courses cover the development of a services contract, the acquisition process as it pertains to services contracting, the development of services-oriented task orders, and services contract surveillance. The courses also cover personal versus nonpersonal services issues, the use of temporary personnel, the rules regulating restriction of, and the prohibitions on, advisory and assistance services, the acquisition of services from established sources, socioeconomic acquisition programs, and the Service Contract Act and other labor act requirements.

Courses in Services Contract Law

A course surveying services contract law is commonly part of the curricula of the nation’s law schools. For instance, George Washington University Law School offers a course called “Service Contract Law” as well as a course entitled “Contracting for Commercial Products and Services.” Commercial training organizations also offer such courses. For example, Management Concepts offers a course entitled “Advanced Federal Contract Law” that addresses services contract law as a subtopic.

These courses cover the Service Contract Act and other related labor laws, such as the Fair Labor Standards Act, the Walsh-Healey Public Contracts Act, the Davis-Bacon Act, the Interstate Commerce Act, the Communications Act of 1934, the Contract Work Hours and Safety Standards Act, the Vietnam Veterans Readjustment Assistance Act, and the Rehabilitation Act of 1973. Some of the courses also cover the laws regulating advisory and assistance services contracts.

Courses in the Service Contract Act

Courses that survey services contract laws generally cover the Service Contract Act. Commercial training organizations also offer courses that focus on this act specifically. For example, Management Concepts offers a course entitled “Service Contract Act.” These courses are geared toward the application of this act and its implementing Department of Labor (DoL) regulations in the acquisition of services. Generally, the text provided contains copies of the Service Contract Act, DoL implementing regulations, Administrative Review Board decisions, and current wage determinations.

Courses in Performance-Based Services Contracting

PBSC courses address the planning, award, and administration of performance-based service contracts. They also provide an overview of the laws and regulations that are germane to services contracting, such as the Service Contract Act and regulations governing advisory and assistance services and restrictions on contracting for personal services. However, the courses entitled "Performance-Based Services Contracting" generally focus on writing performance-based SOWs. Some of these courses also cover developing a related performance requirements summary and a quality assurance surveillance plan.

Overall, these courses are designed for personnel who are required to develop, review, and/or critique performance-based SOWs. These courses come closest to meeting the needs of the target group identified. The Treasury Acquisition Institute is the principal Government-sponsored institution that offers a course on this topic.

Courses in A-76 Competitive Sourcing

Several available courses address aspects of the OMB Circular A-76 commercial services cost comparisons. These courses cover such topics as

- Commercial activities overview
- Management of a public-private competition
- Most efficient organization study
- Employee participation
- Performance-based SOWs for commercial activities
- Quality assurance surveillance plans

WHY THESE EXISTING COURSES DO NOT MEET THE NEED

The existing courses identified by the team are generally good for their intended purposes. However, none of the courses adequately prepare practitioners for the multifunctional PBSC environment described in this report. The existing courses either are designed to be survey courses or are more appropriately tailored to specific functional specialties within the acquisition community, such as the legal profession. While issues such as competitive outsourcing, adopting commercial best practices, and consolidating related requirements are addressed, they are not covered within the context of the multifunctional acquisition team. Some of the key elements of the future PBSC environment that are lacking from these courses are multifunctional teaming, resource constraints, and other challenges. Although solid building blocks

for developing a comprehensive, PBSC curriculum exist today, additional development of existing training is warranted.

A Proposed Performance-Based Services Acquisition Course

The study team believes that the transition to PBSA could be accelerated with a training course designed specifically to focus on the critical aspects common to successful performance-based services acquisitions that were discussed in Chapter 3. These elements are performance-based SOWs, best commercial practices, and performance management. A general outline of such a course, with a discussion of the critical elements to be addressed by the course, is included in Appendix C.

The critical outcome of a course designed to accelerate the transition to PBSA is to instill in the workforce an ability to work creatively and apply the principles of team decision making to take advantage of the best opportunities available. The study team believes that the proposed course should be delivered in, and emphasize decision making in, a multifunctional team setting; use the case study approach; address real work issues such as ethics and the public trust; and be available for just-in-time delivery. These criteria are keys to the success of PBSA training. Some of the overarching principles concerning the delivery of such a course are discussed in the sections that follow.

The Multifunctional Team

While individual participants in the acquisition process can be brought up to speed on general areas of knowledge related to PBSC, only team-based training can give participants the team decision-making skills they need in order to effectively deal with the complex issues of this type of contracting. This is particularly true of large, complex services acquisitions. All participants in services acquisitions—including the requirements developers, the contracting personnel, the program manager, and the quality assurance and contract administration personnel—should be involved in team-structured training. The training should exercise these disciplines in a team environment from the initial stages of an acquisition through performance management.

The Case Study Approach

The acquisition workforce must understand the reasons for making the cultural transition to PBSC. To impart such an understanding, the case study approach is essential. The training will have to emphasize that using checklists to verify compliance with a set list of regulations or requirements will not result in the desired outcome. The case study approach, using small workgroups that function as teams, would provide the individual with the teaming skills needed to address key facets of an evolving services acquisition. The case study should follow the acquisition from the development of the business strategy through performance management. Several

DoD services experiences that could potentially be used as the basis for case studies are briefly summarized in Appendix D, and the case study method itself is discussed further in Chapter 5.

Ethics and the Public Trust

Training to accelerate the transition to PBSC must address the issue of ethics and the public trust to be effective for the defense acquisition workforce. While many of the current acquisition initiatives and future trends parallel similar experience in the commercial marketplace, serving the public good and the public trust add a critical dimension of complexity to the role of the DoD acquisition workforce. A knowledge of overarching programs and policies to foster the public good, the application of ethical principles in public-sector business transactions, and the mitigation of the potential for fraud, waste, and abuse need to be incorporated in all training of the acquisition workforce. This is particularly true when the workforce is charged to apply best commercial practices to support the needs of the warfighter.

Just-in-Time Delivery

Just-in-time delivery of training should play a key role in accelerating the transition to PBSC. Just-in-time training allows the student to acquire the knowledge and skills as needed for on-the-job performance. Furthermore, just-in-time delivery can be tailored to job-specific functions to increase the application of new knowledge and skills on the job. Just-in-time delivery can be used to train within the context of team dynamics while also allowing the individual to meet other members of the acquisition team face to face and network. Cross-functional teams that have just trained together in a performance-based business decision-making course can immediately launch a new services acquisition using and exercising the skills they have just acquired. The just-in-time delivery method is discussed further in Chapter 5.

SUMMARY

While a number of existing courses offered by both the Government and the private sector address elements of PBSC, the study team has identified a need for a course that is devoted to this topic. The recommended approach for accelerating the transition to a PBSC environment involves just-in-time training that would provide the multifunctional acquisition team with the necessary knowledge and skills to create and facilitate a performance-based services acquisition. The training should incorporate training principles discussed in this chapter and follow the general outline found in Appendix C. Suggested DoD services experiences that can be used as material for case studies are summarized in Appendix D. The team believes that PBSC training could achieve maximum effectiveness if several variations of just-in-time training were developed as appropriate for base operations, systems support, and the acquisition of large, complex services systems such as telecommunications services. The team’s recommendations, found in Chapter 7, provide a basis for developing several such courses simultaneously.

Chapter 6

Delivery Options and the Target Population

INTRODUCTION

This chapter discusses delivery options and size of the target population in need of some type of PBSA training. The Department is fortunate that technology has enriched the course providers' repertoire. No longer will one delivery vehicle have to satisfy all student populations. In fact, as this chapter suggests, manifold techniques are available, ranging from traditional classroom instruction to just-in-time, computer-based, multimedia-laden courses, which DoD can employ to teach aspects of PBSA to the multifunctional teams that will be engaged in this activity. This wealth of technology offers a second significant advantage in that DoD planners will be able to tailor the training to a global student population.

The case study method described in this chapter could be used to illustrate how, under OMB Circular A-76, a Government organization could convert to a commercial service provider. Drawing from the practical experiences of that Government organization, as well as the lessons learned, the case (or parts thereof) could effectively be delivered to organizations or installations that are about to undergo a similar transition. Alternatively, the case study could address how a service (or services) already contracted out could be recompeted more efficiently and effectively by proper market research and integration and understanding of true Government requirements. Technology supports this process as well. If the case study were available online, the Department would advertise its location, and the students could avail themselves of its teaching points as needed. It is understood that this approach would not fully optimize the case study approach. A second advantage stems from bundling the case as a component of a larger PBS course. As technology advances and newer, faster, and cheaper transmission methods become available, DoD could transfer the existing content to the new medium.

In this chapter some of the delivery options and the student body in need of PBSA training are discussed. Both technology used to transmit the material and the techniques and technology used to package the content are briefly described. The population that DoD may train in the PBSA skill set is large and demographically diverse. A large student population with diverse educational and professional experiences requires learning environments tailored to suit each student individually. Course providers will find that technology is readily available to address this opportunity and accommodate the diverse needs of this population.

THE CASE METHOD

A popular training technique used at business schools is the case method. This approach can be a very powerful way to teach because it focuses on real issues faced by real managers in real organizations. Unlike lecturing, case method teaching is not the flow of ideas from group leader to participants. Rather, it is the exchange of ideas between and among the leader and the learners.[14] Currently, the Department is using the case method at DSMC and in conjunction with the University of Virginia.

To train students in acquisition reform, DSMC has developed a case study based on the Joint Direct Attack Munition (JDAM) program. The case study was developed under contract by Corporate Classrooms, a vendor based in Cambridge, Massachusetts. The JDAM case study, which DSMC promotes from its website (http://www.dsmc.dsm.mil/), includes an instructor support package and a student reading package, both designed to familiarize the parties with the case model. This training can be brought to the work site and taught by consultants. Since copyright and all the data rights to the case study are held by DSMC, the study is part of the public domain, and any interested vendor can use it.

The Army and DAU have partnered with the University of Virginia's Darden Graduate School of Business to develop a pilot course using the case method. The pilot course is offered through Darden's executive education program and is entitled "Competing in a New Business Environment: A Program for Defense Acquisition Executives." This customized pilot course was developed to address a perceived deficiency: Government personnel's ability to understand what drives private-sector business decisions. The 2-week pilot course was offered in July 1999 to approximately 40 and 45 middle managers from the Department.

With their focus on actual or simulated business challenges, case studies are effective means to develop analytical thinkers, particularly when the cases are analyzed by small teams composed of about five members. The multifunctional teams deployed in the PBS environment will employ analytical techniques to conduct the job analysis required to develop performance-based work statements. Case studies used to illustrate these approaches may be an effective pedagogical tool to convey this knowledge. Furthermore, case studies can be taught in a classroom or through one of the new learning technologies described below.

DELIVERY OPTIONS

Education and training providers have a toolbox of delivery options available, from the tried-and-true classroom delivery to the newest World Wide Web–based learning

[14] Felton, Edward L. "Teaching by the Case Method and Checklist for Effective Case Method Teaching." EDI Training Materials, 1979.

technologies. Within this wealth of options, the capability exists to educate and train multifunctional teams on performance-based services, and it is waiting to be deployed.

New Learning Technologies

New learning technologies provide students with educational opportunities outside the traditional, instructor-led classroom. These technologies include the Internet, intranets, computer-based training (CBT)-Text, CD-ROM, World Wide Web–based multimedia, satellite video conferencing, advanced technology-interactive classrooms, and electronic performance support systems (EPSS). Previously, the focus of the new learning technologies was on improving access for students who are disadvantaged by distance, work practices, or lifestyle. Emphasis is placed on these technologies' impact on learning and their cost effectiveness compared with traditional training methods.

THE VALUE OF NEW LEARNING TECHNOLOGIES

The new learning technologies may improve organizational performance in the following ways:

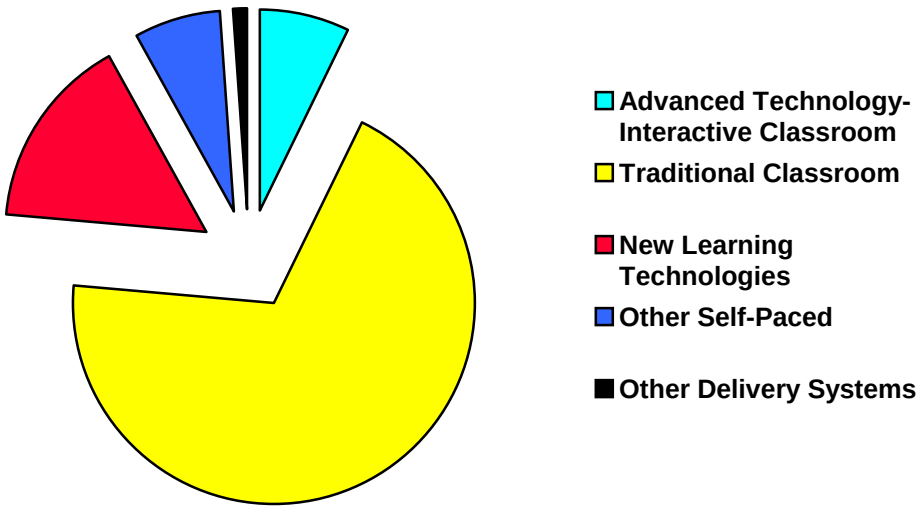
- New learning technologies create flexibility in time, place, and manner of training to suit the requirements of the organization as well as the learner
- New learning technology systems are well suited to dispersed populations, so they improve access to learning
- New learning technology systems provide a means of fostering career-long learning, thereby contributing to continuous improvement and to upgrading and enhancing the skill level and knowledge base of the workforce
- New learning technologies enable individual, interactive methods of learning that can be more effective for some learners than classroom delivery methods
- New learning technology materials are always available and can in many cases be updated easily
- New learning technology systems provide better means for accountability of an organization's investment in learning and development

USE OF NEW LEARNING TECHNOLOGIES

The American Society for Training and Development (ASTD) indicates that the use of new technologies is growing to meet the needs of learners and their employers.[15] Figure 5-1 represents the use of various categories of learning technologies as of 1996.

[15] The ASTD website contains the raw data: http://www.astd.org/virtual_community/library/.

Figure 5-1. Prevalence of New Learning Technologies (1996)



Each of the aforementioned new learning technologies is briefly discussed below.

CBT-Text involves the dissemination of text for instruction via any electronic means. Many organizations have websites from which students can download textual information to their laptop or desktop computers. Students can also access information from their CD-ROM drives. *CD-ROM* technology provides a format and system for recording, storing, and retrieving electronic information on a compact disk. Because of their large storage capacity, CD-ROM devices provide an excellent medium for distributing teaching materials, such as case studies, to a large, geographically dispersed audience.

A *multimedia application*, commonly distributed on CD-ROMs, uses any combination of text, graphics, audio, animation, or video. Interactive multimedia enables the learner to control the training, including the content sequence. Several applications now deliver multimedia applications on the World Wide Web, which is the graphical interface of the Internet.

Many organizations have used *satellite videoconferencing* for their training needs. With the greater bandwidth and the development of less expensive video and communication technologies, the exchange of audio and video between individuals or groups at multiple sites using the Internet and personal computers is becoming commonplace. This technique is particularly well suited to distance learning environments.

An *advanced technology–interactive classroom* integrates instructor-led classroom training and, to various degrees, the learning technologies described above.

EPSS, a leading-edge technology, is an integrated computer application that uses any combination of expert systems, hypertext, embedded animation, and other media to assist the learner to perform a task in real time and with minimal intervention. A well-conceived EPSS may be able to answer such critical questions as Have I forgotten anything? What do I do next? Where can I find further information? Can I see an example? While EPSS training may remove the instructor from the delivery of the product, an expert's knowledge is necessary to assemble the information in a useable, learner-friendly system.

ONLINE EDUCATION OFFERINGS

Because of their potential as a conduit for PBS training, the Internet-based online education offerings are discussed here in further detail. Online education offerings began with a limited number of technology-based courses, but by 1998 both the number and content of online courses had expanded tremendously. Hundreds of Web-based courses have developed.[16] In 1993, *Peterson's Guide to Colleges* listed 93 "cyberschools"; by 1997, *Peterson's* listed almost 800.[17]

More than 1 million students are using these online universities, compared with 13 million attending traditional brick-and-mortar schools. The number of students taking courses online is expected to triple by 2000.[18]

The Federal Government has responded to this development with its own online educational offerings. For example, the Federal Acquisition Institute has established an online university (http://www.faionline.com/fai/register/main_frm.htm), and the NAPM offers an online course, "Integrating Commercial Practices With Government Business Practices, Program I: Managing Suppliers" (http://www.ncma-napm.org). The latter course is part of a pilot program, introduced in December 1998, that was developed in cooperation with NAPM and the National Contract Management Association (NCMA). The material for this 24-credit-hour course is at the senior or graduate level. A team approach to the course is encouraged, although individuals can also take the course. No examinations are conducted; instead, self-evaluation is offered.

ADVANTAGES AND DISADVANTAGES

Online learning technologies are reliable and effective learning tools that are generally easy to operate, and they are improving continuously. Online learning also offers economies to both learners and providers. Online learners do not need to relocate to

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[16] http://cee.indiana.edu/oncourse/.

[17] Lisa Gubernick and Ashlea Ebeling. "I Got My Degree Through E-mail." *Forbes Magazine*, 16 June 1997. http://www.forbes.com/forbes/97/0616/5912084a.htm.

[18] Ibid.

attend a physical school. Online learning providers do not need to build classrooms and dormitories, expand physical libraries, and maintain administrative offices to support on-campus learners. Over the long run, cost savings can be achieved through repeat use of the system. Additionally, with online tools, education, and training, providers and learners are no longer geographically restricted—online education and training providers can offer their courses globally to a large audience, while learners can select the very best from the globally marketed online courses.

On the other hand, online courses need a strong infrastructure that offers technical support. The cost, especially the initial development cost, can be quite high. Also, to date, they offer little support for teamworking, an important need of the target audience.

This sea change in education has not developed without some criticism. "It goes against what Harvard stands for in terms of the learning process," huffs James Aisner, a spokesman for Harvard Business School. "Being together, talking to people in the dorms or residence halls, is an essential part of the learning process here."[19] Indeed, many emphasize the continued need for students to personally interact in today's technology-based environment. While online exchanges are possible, some feel that the essential skill of team participation is best achieved through face-to-face interaction.

However, some studies indicate that students who learn via the Internet may perform better than those matriculating in a conventional classroom setting.[20] The key, it would seem, is engaging the students' interest with relevant material. Acquiring information from a computer is easy, but learning from computers is much more complex because the information provided may not always be relevant.[21] To be successful, online courses must

- Include active learning
- Have high elements for motivation designed into the system
- Include strong user involvement
- Apply methods that permit learners to succeed
- Allow the user to confront a program that is practical, productive, and proficient[22]

The best online courses strive to achieve all of these criteria.

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[19] Lisa Gubernick and Ashlea Ebeling. "I Got My Degree Through E-mail." *Forbes Magazine*, 16 June 1997. http://www.forbes.com/forbes/97/0616/5912084a.htm.

[20] *New Scientist* magazine, a British scientific journal, reported that an experiment with 33 sociology students at a U.S. university found that students who learned on the Internet scored 20 percent higher in examinations than those taught in the classroom. Jerald Schutte, a professor at California State University in Northridge, found after dividing his statistics class into two groups—traditional and online—that the online group also spent more time on classwork, understood the material better, and collaborated more (http://foxnews.com/scitech/013097/internetclass.sml).

[21] Bob Hawkins. "Self-Directed Learning: Changing from Andragogy to Cybergogy." Norfolk, VA: Naval Center for Acquisition Training.

[22] Ibid.

JUST-IN-TIME DELIVERY

Just-in-time delivery of training, employing a variety of techniques, promises to play an important role in the future. The basic rationale for using just-in-time delivery is that skills learned are immediately applied to the actual problem at hand. Additionally, as educational psychologists have long known, learners retain better what they apply soon after learning takes place. The direct application of subject matter recently learned strongly reinforces that learning.

The Section 912(c) Services study team and the Section 912(c) Commercial Business Environment study team jointly reviewed Andersen Consulting's best-practices simulation delivered on CD-ROM. The type of training product Anderson Consulting demonstrated to the two teams would be available for just-in-time delivery to large numbers of students, targeted by the performance-based services training effort. Andersen asserts that its highly tailored, highly customized interactive training for job-specific applications actually increases learning retention and allows individuals to exercise judgment in a risk-free environment.

To illustrate its offerings, Andersen demonstrated a computer-based education and training tool it created for Pratt & Whitney that offers the student an interactive experience in a simulated workplace. To build a common culture, break down the traditional organizational paradigms, and increase communication, the training tool was created to be used by Pratt's top 4,000 executives. The customized program was developed with customer involvement so that institutional knowledge was imparted. It took a little over a year from conceptual design to rollout of this 40-hour course.[23]

The Pratt executives participated in multifunctional teams in a 40-hour, goal-based business decision-making course that simulates the launching of a new engine program at Pratt. The week-long course begins in a classroom setting, with a video clip from the company's CEO, who endorses the training. The learners then work independently online for three and a half days, regrouping in the classroom for the final day, when the multifunctional team must reach consensus on an investment plan and present it to an actual company executive. This combination of learning environments allows the student to personally acquire all content in the programmed set of solutions during the virtual simulation, while still learning the importance of team dynamics and out-of-the-box thinking during the classroom discussions. It also allows individuals to meet face-to-face and provides the opportunity to network. During the independent virtual simulation, the student assumes the role of program manager and faces three tasks: (1) conducting interviews, (2) developing a business case, and (3) presenting the business case.

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[23] A similar course might cost $100,000 to $500,000 for phase 1 (assessment and prototype) and $1 million to $5 million for phase 2 (simulation development). Andersen asserts that payback can be achieved with just over 100 students during a 4-year period.

THE STUDENT POPULATION

The focus now turns to the student population. This is an important dimension of the discussion because the student body's size, composition, location, and demographics all are planning factors that DoD leadership will have to consider in developing the PBSA training. The student population in need of training is quite large because it encompasses both acquisition and requirements personnel. It is a global population because the Department contracts for services worldwide, and it is a demographically diverse population like any representative cross-section of the civilian workforce.

Who Should Receive the Training?

This section defines the size of the population that will use the proposed training. This population divides into two groups: the DoD personnel (both military and civilians) that make up the acquisition and technology workforce, and their peers, external to the acquisition community, with whom they will work to acquire services. The size of the former group—the acquisition and technology workforce—is fairly well understood. In this chapter, we do not explicitly define the size of the latter—the workforce employed by the requiring activities—because it potentially includes a far larger cross-section of the defense establishment: civilian and military members of the manifold requiring activities participating in future services procurements.

A high degree of certainty exists that the population in need of training will grow rapidly. More activities will be subject to outsourcing, giving rise to more contracting situations requiring performance-based SOWs, market research, best-value source selection, and performance management.

WORKFORCE SIZE AND COMPOSITION

The size of the civilian strength of the Defense acquisition workforce depends on the method used to account for the incumbents. We use the acquisition and technology workforce (commonly referred to as the Jefferson Solutions workforce) to define the civilian strength of the acquisition community. This definition broadens the scope of acquisition manpower to encompass technical specialties as well as occupational specialties that traditionally are considered to be acquisition specialties.

Section 912(b) of the National Defense Authorization Act for Fiscal Year 1998 required the Secretary of Defense to report to Congress on reductions in the Defense acquisition workforce. That report required a standard definition of the term "defense acquisition workforce" to be applied uniformly throughout the Department. DoD responded with a review of the DoD acquisition workforce in a report to Congress that contained an initial estimate of the workforce's size based upon an approach that combined both

organizational and occupational dimensions.[24] This new acquisition workforce, known as the acquisition and technology workforce, is still under refinement.

The workforce requiring this training is quite large. The principal reason for this is that the acquisition and technology workforce of approximately 145,000 civilian members[25] is only one element of the multifunctional acquisition team that includes civilian and military stakeholders serving DoD's worldwide mission. This community is potentially at least as large as the acquisition workforce. Furthermore, it will expand and contract in step with the complexity of the services for which the Department elects to contract.

Total Just-in-Time Students Trained per Year

To calculate the number of students who will take the just-in-time course for PBSA at the installation level per year, the group requested estimates of offerings required per Service. The estimates were: 135 (120 Air Force and 30 DoD), 188 (Army) and 70 (Navy) for a total of 393 classes per year.

As an example of how these figures were obtained, the Air Force estimated the total number of relevant installations (80) and added 10 DoD agency installations for a total of 90. The Air Force estimated that half the installations would require two courses per year and that the remainder would require only one, based on the number of large, complex acquisitions likely to be undertaken in a year. The assumption is that each such acquisition will require a just-in-time course as preparation. This gives a total of 135 courses per year, at least for the first 4 years.

Two important issues must be addressed: will the teams have the time to take the course, and will the course be available to teams when they need it? From AFQMI's experience with A-76 studies, the answer to the first question is probably yes. Large, complex acquisitions are so daunting that staff are very willing to make time for relevant training. Careful selection of a supplier and good management of scheduling will ensure a positive answer on the second issue.

Total Personnel Requiring Just-in-Time Training

To estimate the total number of students who will need the just-in-time course for PBSA at the installation level, estimates were made for the Air Force first. To calculate the number of officers needing the course, the group took the total of all officers in contracting (1,003) minus one-half of those assigned to the Air Force Materiel Command (399 – 199 = 200). This reduction was based on the rationale that a significant number of these officers are involved in acquisition differing in kind

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[24] Allan V. Burman, Nathaniel Cavallini, and Kisha N. Harris. *Review of the Department of Defense Acquisition Workforce.* Jefferson Solutions. September 1997.

[25] The military segment of the acquisition and technology workforce has approximately 17,400 members.

from what is covered by the course—but a significant number would also rotate into installation or operational contracting. According to this calculation, there is a total of 803 officers.

The group then calculated the total of all noncommissioned officer (NCO) contracting personnel of grades above E4, a total of 901. (Virtually all enlisted personnel are assigned to the operational or installation contracting activities, but we wanted to focus training on the more senior NCOs.) The group calculated all civilian contracting personnel (1102's only) grade GS9 and above (4,680), minus two-thirds of those stationed at Air Force Materiel Command (2,792 – 1,861 = 931). Again, the assumption was that two-thirds of these personnel are involved in acquisition differing in kind from what is covered by the course (and they are less mobile than officers) for a total civilian student population of 3,749. Adding the totals for officers, NCOs, and civilians gives a total of 5,453 DAWIA personnel.

The group estimated that for each DAWIA worker involved in large, complex acquisitions at the installation level, six non-DAWIA quality assurance personnel in areas such as civil engineering and transportation and their functional area chiefs are involved, as well as representatives of assorted organizations such as Manpower and the Judge Advocate General (JAG). The total student population, therefore, is the DAWIA force times seven, or 38,171 students. Similar calculations were undertaken for the other Services, yielding 13,000 (Navy) and 18,572 (Army—it should be noted that the Army used a 3:1 ratio between non-DAWIA and DAWIA workers) for 69,743 students total.

Team Composition of the Individual Just-in-Time Course

Total class size for the just-in-time course on PBSA at the installation level differs among the three Services. The table below is the group's estimate of the composition of classes for each Service:

Service	**Air Force**	**Army**	**Navy**
Ratio of non-DAWIA to DAWIA	6:1	3:1	4.5:1
Operational personnel (non-DAWIA, for example, Civil Engineering, Supply, Maintenance, and Transportation)	15	6	9
Acquisition personnel (DAWIA—for example, Contracting)	3	2	2
Other personnel (for example, Manpower, JAG, and Small Business)	4	2	2
Total	22	10	13

Assuming the class sizes listed above, the total number of students trained for all services will be 5,760 per year: $(135 \times 22) + (188 \times 10) + (70 \times 13)$. This amounts to 8 percent of the total requirement trained per year.

The DSMC "CLS" Target Population

For the elective in DSMC's APMC, students (all DAWIA), approximately 900 per year, will have the opportunity to choose the planned elective. It is hoped that some flexibility will be allowed so that non-DAWIA members of acquisition teams can also participate. Since only three electives of 20 students each will be available at first per year, 60 students will actually participate. In developing the curricula for this training, Total Ownership Cost criteria need to be addressed in the contracted services for CLS.

This elective has been completed and will be incorporated in the 99-2 APMC. Since the planned activity is an elective, not a full course, it does not require prior approval from functional boards. Based on the results of this pilot, DSMC will recommend how the elective should be modified and whether it should be expanded into a standalone elective course of 2 to 3 days. As the relevant learning objectives are incorporated into other courses, the total population of students reached will increase accordingly.

We believe the total population requiring this training is much smaller than that for the installation course because acquisition personnel involved with sustainment acquisition and CLS are already trained in acquisition reform. Furthermore, the total number of contracting actions in this area is smaller (although the dollar value would be much higher) than a typical installation services contract. However, if a major weapon system program manager made an acquisition strategy decision to competitively source its sustainment, the requiring activity could request DSMC to send an instructor on-site to provide appropriate training just-in-time.

A Comparison of the Proposed Courses

The chart below summarizes key aspects of the two training courses being recommended by the 912(c) group.

Annual Estimate	Just in Time	CLS
Number of offerings	393	3–28
Throughput	5,760	60–1,320
Ratio (non-DAWIA/DAWIA)	Range of 3:1 to 6:1	All DAWIA
Instruction location	On-site	Ft. Belvoir, VA
Length	40 hrs	4 hrs
Personnel to be trained	69,743	TBD
Pilot training developed	TBD	June 99
FY99 funding required to develop	$300,000	$5,000
Add'l annual funding to deliver	$3,400,000	$5,000

PROPOSED INSTALLATION SERVICES JUST-IN-TIME COURSE

Course Overview

Set forth below is a notional course or workshop that addresses some key areas the 912(c) team believes should be addressed. Interested companies should feel free to modify or adjust it as they see fit—as long as the key areas are addressed. For the purpose of discussion, this notional course is built around 10 modules. Each module except the first and last will have an introductory discussion, a team-oriented exercise that yields a team solution, and a presentation and constructive critique of the team solution with an examination of alternative outcomes. It is understood that contracting professionals, who will make up a significant portion of the class, will already be well acquainted with much of the technical subject matter presented. For them this material will be a form of review. They have the most to gain from the teaming component and the teaming activities pursued throughout the course. It is expected that the instructor will make the most of the existing knowledge within the group by using the contracting personnel as group leaders during group work assignments. Approximately 1 month of lead time will be needed to identify team members before the course starts.

Basic skills to be taught in the course should include (1) how to write a performance-based work statement rather than a detailed "how to do it" specification, (2) how to develop measurable performance characteristics associated with such a work statement, (3) how to write an effective contract that contains incentives and penalties, and (4) how to effectively administer such a contract.

The course itself might be considered more of a workshop rather than a formal course, using multiple case studies to bring a real-world flavor to the team exercises. This workshop would be offered just in time—which would mean something like "in the early stages of the acquisition cycle (for example, after the decision to initiate a competitive acquisition and in the critical early formative stages of the acquisition team that will be responsible for its execution)." It would supplement rather than replace training for the contracting members of the classes. The advantage to those contracting students would be in gaining direct, relevant exposure to appropriate skills in a team environment just prior to working with the team in a real acquisition. In a sense, then, the workshop is something like a consulting service.

The following 10 modules lay out a potential outline for the course or workshop:

1. Overview of Performance-Based Services
2. Gathering Market Data
3. Benchmarking Best Commercial Practices
4. Developing Performance Standards

5. Reconciling Customer Needs With DoD Regulations
6. Writing a Performance-Based Statement of Work and Quality Assurance Plan
7. Identifying Potential Problems
8. Managing a Partnership Under Normal Circumstances
9. Reacting to a Significant, Unanticipated Problem
10. Closing Discussion and Summary

Course Introduction

In Module 1 ("Overview of Performance-Based Services") the participants introduce themselves and state their goals for the course. The instructor responds by making minor adjustments in the course emphasis as needed and by helping the participants adjust their expectations. The instructor distributes course materials, including a student guide and text.

The instructor explains performance-based services at a level relevant to the participants and then outlines the course and what it is intended to teach about performance-based services. The instructor presents relevant material on the context for the case study and introduces the participants to any computer-aided tools (group-ware, databases, websites, etc.) that they will use. The group resolves any administrative issues.

Market Research

The two modules covering market research address collecting market data and analyzing data to benchmark best commercial practices. The key goals of this section are to

- Teach participants how information gathered in market research shapes the acquisition plan and how what they collect here frames what they can do later.
- Teach the participants the general scope of market research—to identify the best practices available to conduct the service in question, the best methods of contracting for the service that will give the Government access to best practices, and the best available sources for performing the service.
- Demonstrate the value of continuous open communication across functional lines and between the Government and potential offerors.
- Demonstrate the value of thinking creatively and of continually seeking out new approaches to a problem from external information sources.
- Teach the most important elements of Government policy that affect each participant's ability to conduct aggressive, creative market research.

Module 2 ("Gathering Market Data") first explains the importance of market research to optimize the potential use of commercial services and best commercial practices. Participants will learn or review the process of gathering data on suppliers' capabilities and the business practices that surround them.

This module leads the participants through an exercise to develop a market research program that, when executed, will provide information on the following:

- Potential suppliers
- Competitive market forces
- Various measures of performance and quality
- Commercial practices
- The successful acquisition practices of other organizations

Module 3 ("Benchmarking Best Commercial Practices") first explains what kinds of benchmarking are available and then asks the participants to structure a benchmarking effort for the case study. Options include (1) high-level review of relevant practices elsewhere, (2) collection of comparative quantitative data on specific, relevant metrics, and (3) personal visits to relevant sites to compare experience. The exercise should devise a way to simulate any of these approaches so that participants see what kind of information they are likely to get; different members of the team might try different approaches. For example, the instructor might role-play an external source for options (1) or (3). Alternatively, the participants themselves might split up and role-play both sides. In either case, the instructor should ensure that the participants understand that "best commercial practices" is a relative term. The key is to find "best practices" relevant to the instant procurement. Whether the practice is found in the commercial, academic, Government, or military sector is less important than how it can contribute to acquiring the required services "better, faster, cheaper." The instructor discusses the options at the end and helps the participants compare them.

Requirements Determination

The next two modules present the challenge of properly capturing the ultimate customer's true concerns and needs in the acquisition and introducing them into the acquisition process. The key teaching goals for this section are to

- Demonstrate how the specific presentation of requirements basically drives everything else to follow in the acquisition.
- Teach participants how to use data from market research to focus their attention on their ultimate customers' true requirements.

- Demonstrate how current DoD regulations, instructions, etc., when it comes to providing any service, often presuppose a “best” way that conflicts with the best practice currently available.
- Teach participants how to review such documents creatively and constructively and how to scrub them for the performance requirements truly relevant to their ultimate customers. (Note: The Maxwell study is finding that current Air Force documents present a severe barrier—perhaps the most serious barrier—to true performance-oriented thinking.)
- Teach participants creative ways to accommodate Government documents that cannot be waived so as to make requirements as performance-based as possible.
- Demonstrate the importance of continuing open communication and mutual trust and respect among all participants in a process that could make the participants defensive about their professional identities and values.

Module 4 (“Developing Performance Standards”) addresses answers to the question “What does the ultimate customer actually value and need?” In this exercise, the instructor explains the principles and basic tools of strategic alignment. Best commercial practices on product design or managing strategic relationships would be ideal background for this. Next, the participants execute a strategic alignment of their own for the case at hand. If ultimate customers are participating—this is ideal—they role-play themselves, and the other participants query them about their primary concerns and values. Without ultimate customers, the instructor can role-play this part; the case should provide adequate material to allow this. The product is (1) five or so criteria, relevant to the service in the case study, that capture the ultimate customer’s primary concerns and (2) ideas for metrics that can reflect these concerns. The local service acquisition organization should be able to collect information that it can use to calculate the value of the metrics.

In Module 5 (“Reconciling Customer Needs With DoD Regulations”), the instructor explains that existing DoD regulations typically provide a great deal of direction about how a service should be provided. The instructor discusses who “owns” these regulations and how participants can effectively challenge them. The instructor also explains that not all challenges will be successful and describes how the participants should reflect professional concerns that prevent successful challenges. Next, the participants review case study materials and identify which materials most constrain the application of the products of their strategic alignment exercise. With the instructor, they role-play dealing with a challenge to unsatisfactory regulations. In the end, they generate a requirements document that reflects the regulations they must honor as well as the criteria they have identified as truly relevant to the ultimate customer.

Writing the Performance Work Statement

The next two modules translate the requirement into a formal statement that the Government can use to manage its relationship with a provider. This section's key teaching goals are to

- Demonstrate how the performance work statement relates the ultimate customer's needs—and risks relevant to these needs—to a specific relationship with a provider. Show how it must reach in both directions to be effective. What is really required is to learn to write a performance-based work statement rather than a detailed "how to do it" requirement. Understanding how best to give the contractor incentives to perform well (while still preserving the Government's options should the contractor perform poorly) is an important facet of these modules.
- Teach participants in broad terms how the following factors interact:
  - the quality and trustworthiness of the provider chosen in the source selection
  - the Government's relative ability to monitor and quantify outcomes relevant to the final customer and performance of specific tasks
  - the relative levels of Government and provider expertise on the details of providing a service
  - the options available to induce performance
  - the length of the contract and stability of the environment in which the service will be provided
  - the appropriate specificity of the final terms of the contract.
- Demonstrate the integral relationship between the SOW and the QAP. How the Government will manage performance must be considered in how the Government defines the performance outcomes.
- Teach participants in broad terms how to define a SOW and QAP.
- Demonstrate the relevance of market research to the execution of a performance-based SOW.
- Reiterate what information market research should seek to support such an effort.

In Module 6 ("Writing a Performance-Based Statement of Work and Quality Assurance Plan") the issue is to distinguish a performance-based SOW and QAP from documents that are not based on performance. The instructor starts with a SOW and QAP that are not performance-based, then outlines the principles of a performance-based approach. The instructor talks about the benefits associated with this change and how the participants can look for them in the context of this case. The participants then develop the key elements of a balanced SOW and QAP for this case study. The instructor uses the closing critique to query the participants about how their product

reflects each of the elements identified in the "key teaching goals" for this module. Developing measurable performance characteristics associated with the Performance Work Statement will result in metrics that will give the contractor an incentive to perform in certain ways—and therefore must be thought through very carefully.

Next, in Module 7 ("Identifying Potential Problems"), the instructor reviews things that can cause trouble, such as an unreliable provider, inability to measure the required performance effectively, or lack of adequate Government expertise, and explains the principles of best practice that lie behind managing such problems. The instructor then posits several specific problems relative to the SOW and QAP built in Module 6. The participants break into groups, one for each specific problem. Each group devises a balanced fix that manages its particular problem without giving up aspects of performance-based services that are still available. In the critique, the instructor carefully queries each solution, making the broader point that performance-based services require each SOW and QAP to be tailored to manage the risks present in a particular situation.

Performance Management

The two modules in this section apply a performance-based SOW and QAP to the provision of a specific contractor-provided service. They illustrate the application of a performance-based approach by examining how this approach affects DoD's ability to get the performance it wants in two very different circumstances: when a partnership is running smoothly and when it faces a serious surprise. They emphasize how to effectively administer a contract. The key teaching goals are to

- Demonstrate that, under performance-based services, project management is about both (1) ensuring performance under the contract and (2) supporting a relationship relevant to the contract and to future contracts or concurrent contracts at other sites.
- Demonstrate the importance of maintaining flexibility and control in a relationship. (In fact, flexibility is required to maintain effective control in an unpredictable environment or long-lived relationship.)
- Reflecting the two points above, teach the participants how to work effectively with a provider to (1) anticipate and resolve most problems routinely and (2) react effectively to significant surprises.
- Demonstrate how the decisions made in the activities covered in Modules 2 through 7 affect the participants' ability to manage a project effectively. In particular, demonstrate how performance-based services will affect their approach to project management. Be specific about the benefits and costs of performance-based services and how to think about them where they ultimately count most: in the actual execution of a contract.

In Module 8 (“Managing a Partnership Under Normal Circumstances”), the instructor starts by talking about the kinds of issues a buyer and seller must resolve on an ongoing basis. The issues include adjustments in (unincentivized) performance metrics and priorities, allocations of discretionary funds for small investments in assets or training, and action plans to resolve small shortfalls in performance. The instructor then posits one or more specific issues of this kind that must be addressed and resolved in the context of the case study. The instructor breaks the class into groups to address each issue. Using the performance work statement and QAP developed in Module 6, the participants in each group role-play how they would deal with these issues as buyers and sellers. The exercise is designed to illustrate the importance of working together daily toward mutually satisfying goals in a partnership.

In Module 9 (“Reacting to a Significant, Unanticipated Problems”), the instructor starts by talking about the kinds of surprises that can occur and, broadly, what options exist to address them. The instructor then posits a specific performance failure in the context of this case study. Using the performance work statement and QAP developed in Module 6, the participants work their way through an exercise to correct the problem. The instructor plays the provider, whose performance continues to slide until the participants find a solution or decide to replace the provider. The exercise is designed to walk the participants through a process that, if executed properly, progressively escalates management of the problem until the provider satisfactorily overcomes the problem.

In the critique, the instructor talks about other ways to manage the problem and other steps the participants might have taken, given the terms of the agreement in place. The instructor talks about the distinction between honest problems and problems caused by provider neglect (or worse), how to distinguish them, and how to deal with the two. The instructor emphasizes the importance of having flexible but effective arrangements in place to manage different problems. The case study should provide enough specific material to support this kind of broad discussion in concrete terms.

Closing Discussion

Module 10 (“Closing Discussion and Summary”) is the final review. The instructor leads the participants through what they have learned from the course, using a Socratic method to extract and highlight, one more time, the key teaching goals of the modules. Where possible, as part of this discussion, the instructor seeks parallels to the real-life problems that the team will face at the case study site. In all likelihood, personal fears and concerns will arise here, if not earlier; the instructor should be prepared for this and give the participants explicit feedback on how to address such fears at the site. The instructor gets formal and informal feedback on how the participants rate the course and what could be improved.

SUMMARY

Today's technology-rich environment offers a wealth of education and training delivery methods that could be employed to disseminate PBS training to the large community of acquisition and requirements personnel that would benefit from this training. The case study is a time-tested method that may be a particularly useful way to illustrate how successful PBS arrangements are established and managed. Just-in-time training, employing technology-based delivery methods, could benefit the Department if used to deliver or reinforce PBS teaching concepts to the services acquisition community. There are significant benefits to technology-based learning tools. Of specific interest to DoD is the ability of online delivery methods to service a large population of geographically diverse students. Furthermore, customized just-in-time training focuses on interactive learning in a risk-free environment, encouraging learners to exercise business judgment. This type of learning tool, with its emphasis on decision making and teaming, appears to be extremely valuable in the current DoD acquisition environment.

Chapter 7

Recommended Plan for Accelerating the Transition to a Performance-Based Environment

INTRODUCTION

Members of the Defense acquisition workforce and their counterparts in the requirements community—together as a multifunctional team—need specific training in performance-based services. Specific recommendations for accelerating the transition to a performance-based environment, through training, are offered here. Each of these recommendations is discussed in the sections that follow.

1. Address the need for multifunctional performance-based services training for the acquisition workforce and related requirements personnel.
    a. The Department needs to develop a management plan to integrate all performance-based services education and training activities. A lead organization should be chosen to accomplish this task. The Chancellor for Education and Professional Development should play an integral role in this process. Implementation target: March 2000.
    b. DAU should review existing course materials in light of the skills set identified by the study group (contained in Appendix B). Implementation target: March 2000.
    c. DSMC has already begun to develop multifunctional training for performance-based acquisitions of large, complex systems sustainment services and other large complex service activities. The DSMC, given adequate resources and funding, should develop multifunctional training for performance-based acquisition of two classes of service contracts. Implementation target: June 1999.
    d. The DoD leadership should demonstrate and continue support of innovative training to cement its commitment to a performance-based environment. An endorsement letter from USD(A&T) that outlines overall goals and timeframes should be considered to encourage leadership commitment.

2. Accelerate the transition to a performance-based environment by developing a pilot course for a just-in-time, multifunctional training program focusing on the acquisition of complex operational services. Implementation target: 6 months after funding is available.
3. Employ state-of-the-art learning technologies as appropriate and practicable in all performance-based services training materials.
4. Develop performance metrics targeting the results of performance-based services training.

RECOMMENDATION 1: ADDRESSING TRAINING NEEDS

Management Plan

The Department needs to develop a management plan to integrate all performance-based services education and training activities, to ensure that organizations do not train at cross-purposes. The plan should address issues such as target audience, funding, stewardship, incentives for attendance, reporting requirements, and evaluation. It should also include specific provisions for deconflicting development and use of contracting provisions that may run counter to DoD guidance or statutory constraints.

Defense Acquisition University

The Under Secretary of Defense (Acquisition and Technology) should use the outline provided in Appendix B, approved by subject matter experts and field practitioners, to implement specific contracting courses in performance-based services for the acquisition community. This outline contains guidance that those involved in establishing curricula can use to ensure that graduates of performance-based training programs have the requisite skills. DAU is responsible for training the DoD acquisition workforce. Because of this, DAU is a natural resource for developing the details of a training program that promotes performance-based services acquisition. The study group has provided a skills list (Appendix B) to assist DAU in adjusting its existing curriculum and in adding additional courses to ensure that the acquisition workforce understands (1) the value of performance-based services acquisition and (2) how to realize that value.

Defense Systems Management College

DSMC should develop multifunctional training for performance-based acquisitions of two classes of services contracts: large, complex systems sustainment services and other large, complex service activities such as health care, information technology, and engineering services. While all classes of complex services contracts offer serious challenges, progress is likely to be easiest to achieve where organizational barriers are smallest. This course would initially be developed as an elective in the APMC and later be assessed for expansion and wider dissemination to the acquisition workforce.

System sustainment services present the least organizational barriers to performance-based services. For most of these services, DoD can largely rely on personnel in the traditional acquisition workforce. Contracting personnel obviously reside here, as do the functions typically responsible for the maintenance of major systems. For example, personnel responsible for depot-level support primarily reside in acquisition organizations. DoD should take advantage of this *relative* simplicity to pursue progress as aggressively as possible.

DSMC has already taken the initiative to develop an elective module to its APMC focusing on sustainment services associated with major weapons systems. This elective has been developed and will be beta tested in the APMC 99-2 course. Based on the results of this pilot, DSMC will recommend how the elective should be modified and whether it should be expanded into a standalone course.

"Other complex service activities" is a more diverse class of services. Nonetheless, it typically involves a sophisticated set of related services made available to a broad class of individuals, functions, or organizations. TRICARE, which was discussed in Chapter 2, illustrates the complexities involved.

Department of Defense Leadership

The change to a performance-based environment is evolutionary. Time and a commitment from the Department's top leadership are required to make this a training priority. Leadership can demonstrate this commitment by attending one of the initial sessions of the performance-based training.

By its very nature, performance-based services acquisition is a moving target. Best practice in this area has progressed rapidly in the commercial sector over the past 20 years as international competition has intensified and the importance of performance-based strategic relationships has increased. Change will continue as partners learn better ways to link their processes and work together toward continuous improvement. Training can introduce the DoD acquisition workforce to this new business environment. DoD should continue to refine its acquisition training and add additional courses as new opportunities to pursue acquisition reform justify specifically targeted training. Just-in-time training will keep the workforce up to date with best practices and new developments.

RECOMMENDATION 2: INSTALLATION SERVICES JUST-IN-TIME TRAINING

A specific class of services should be selected as the focus of this just-in-time course: complex operational services. At a minimum, complex operational services require teamwork between the contracting personnel from the traditionally defined acquisition workforce and the functional personnel relevant to the services being acquired. As activities increase in complexity, more organizations become involved—more

functions at a single site, more base organizations, or even major commands when more sites are involved. Today, no DoD organization has a natural responsibility to develop multifunctional, cross-organizational team-based training required to promote performance-based acquisition for such complex operational services. As a result, the study group focused its attention on developing a prototype course that addresses the needs of this class of service.

The study group felt that just-in-time delivery was particularly useful for the type of acquisitions identified because they are discrete, fairly rare events. The complexity of the acquisition demands that some level of training be provided. The majority of the team members involved, however, will perform such an acquisition only once in several years. Career-level training on PBSA for these team members, therefore, would be wasteful. Just-in-time training allows enough training to be given without tying staff up in unneeded training. There are two approaches to delivering the just-in-time training, and each results in different requirements numbers and outcomes for the department. The first approach is to train people only when they are assigned to a team. The second is to provide some basic training prior to team assignment to ensure that certain skill levels exist and then to provide specific team training. The door should remain open to both alternatives when seeking supplier proposals.

Personnel involved with the acquisition of services at the installation level should be provided with as much training and assistance as possible and at the earliest possible date. The number of OMB A-76 competitive sourcing opportunities is increasing rapidly, as are the number of competitions for services that have been previously outsourced. The number of these acquisitions lends a particular urgency to the development of training that helps in the efficient and effective execution of these competitions. To this end, the outline in Appendix C, plus the training needs assessment in Appendix I, should be provided to the acquisition training industry for the development of prototype training for competitive sourcing of operational services. This training material should be available for beta testing 6 months after funding is allocated.

Since performance-based services stretch far beyond the acquisition community, the Under Secretary of Defense (Acquisition and Technology) should seek broad application of the competencies identified in the performance-based course outline. The outline should be the foundation for the training of integrated program team members and stakeholders participating in performance-based acquisitions.

The performance-based services course outlined in the previous chapter will serve a valuable purpose because it will make this training available when it is needed, using a just-in-time delivery mode. We recommend that the acquisition strategy articulate our expectation that this course be funded by industry, similar to the NAPM-NCMA course discussed in Chapter 5. The study group believes there are sufficient training requirements within DoD (plus those in the Federal Government and private industry) to give industry an incentive to make this up-front commitment. Return on investment will be through DoD payment for students to attend this training (whether DoD should guarantee a minimum level of enrollment needs to be determined). This is a powerful

incentive for industry to develop meaningful training and to keep the training current. Failure to do so will adversely impact industry's bottom line. Success in developing meaningful training will have a positive financial impact. This is the essence of the commercial marketplace—and we believe that the warfighter—as well as the American taxpayer—can benefit from developing a win-win strategy to exploit applicable characteristics.

The other possible acquisition strategy—offering a contract to a supplier or suppliers to develop the course—should not be overlooked. It is possible that this alternative acquisition strategy could result in the best value, achieve a lower overall cost to the Government, and be fairer to the course offeror(s). Consideration should also be given to utilizing the Graduate School of the United States Department of Agriculture as our training source through an interagency agreement.

Since the target audience for this course is largely outside the DAWIA-defined acquisition community, we recommend that one of the Services (vice DAU) be tasked to take the lead in development of this course.

Implementation Plan for the Installation Services Just-in-Time Course

Based on the urgency of the requirement, an extremely aggressive schedule is proposed—with a pilot course being developed 6 months after funding is allocated. To achieve this goal, we recommend that preliminary actions be taken while this report is being reviewed. The implementation plan can be revised, as appropriate, based on final decisions relative to our recommendations.

1. 1 April 99: Issue a Sources Sought Synopsis in *Commerce Business Daily* to identify requirements and establish a date for Industry Day **(done)**.
2. April–May 99: Have the Services and DoD agencies identify individuals to participate in Industry Day and in evaluation of the proposed courses. The estimated need is for 18 evaluators: 5 from each Service, 3 from defense agencies **(done)**.
3. 7 May 99: Conduct an Industry Day to provide an opportunity for dialogue between DoD and potential suppliers **(done)**.
4. Funding date + 1 month: Request and receive lesson plans and proposed cases from interested vendors. Review input and provide feedback.
5. Funding date + 3 months: Downselect to five suppliers.
6. Funding date + 6 months: Have vendors teach courses to field evaluators. Evaluators rate courses.
7. Funding date + 8 months: Review evaluations and downselect to two vendors as preferred candidates to provide just-in-time training.

8. Funding date + 11 months: Fund implementation of a web-based version of the course.
9. Funding date + 12 months: Begin implementation of training at DoD installations.
10. Funding date + 12 months: The web-based version will be available for refresher training and for remote or unique situations.
11. Continuing assessment.
12. Allow installations to procure the course(s) off the schedule to satisfy their training needs.

RECOMMENDATION 3: LEARNING TECHNOLOGIES

Today's technology-rich environment offers a wealth of education and training delivery methods that could be employed to disseminate performance-based services training to the large community of acquisition and requirements personnel who would benefit from this training. Such delivery methods include the case method, just-in-time training, and technology-based learning tools, such as online courses.

The case study is a time-tested method that may be a particularly useful way to illustrate how successful performance-based services arrangements are established and managed. Face-to-face teaching, in which an experienced expert uses a case study as a teaching frame, is particularly good for introducing students to new concepts like team decision making and creative adaptation of best practices to a new setting. Just-in-time training could benefit the Department if used to deliver or reinforce PBSA teaching concepts to the services acquisition community.

There are also significant benefits to technology-based learning tools. Of specific interest to DoD is the ability of online delivery methods to serve a large population of geographically diverse students. Furthermore, customized online just-in-time training focuses on interactive learning in a risk-free environment, encouraging learners to exercise business judgment. This type of learning tool, with its emphasis on decision making and teaming, appears to be extremely valuable in the current DoD acquisition environment. Technology-based tools are especially good for refreshing or updating skills already present in the workforce and providing additional tools or information to students already familiar with team decision making and creative problem solving. DoD needs to study all these technologies and apply them as warranted to PBSA training.

RECOMMENDATION 4: METRICS

Performance metrics are a critical success factor. Thus, the Department should develop performance metrics to evaluate the efficacy of the performance-based training being developed. It is essential that these metrics be results-oriented as

opposed to activity-based. ASTD suggests five levels of training evaluation, based on the Kirkpatrick levels. These are **Reaction**, which gauges initial learner response; **Learning,** which measures whether learning took place according to objectives set; **Attitude**, which measures how learners feel about what they are learning; **Behavior**, which measures changes in job performance; and **Results**, which measure organizational change due to training. The first three can be measured during and shortly after training. The last two require long-term planning and management to accomplish. The study group recommends that every attempt be made to establish metrics and to evaluate all levels.

Appendix A

Services-Oriented Courses

GOVERNMENT COURSE OFFERINGS

Defense Acquisition University or Its Consortium Members

- Introduction to Service Contracting
- Contracting Officer's Representative Course
- CON 101, Basics of Contracting
- CON 104, Principles of Contract Pricing
- CON 202, Intermediate Contracting
- CON 204, Intermediate Contract Pricing
- CON 210, Government Contract Law
- CON 236, Contractual Aspects of Value Engineering
- CON 243, Architect-Engineer Contracting
- PQM 212, Market Research

Federal Acquisition Institute

- COR Mentor Course (online)
- Introduction to Federal Contracting
- Procurement Planning
- Basic Contract Administration
- Contracting for A-E Services

Treasury Acquisition Institute

- PBSC
- Writing Performance-Based Statements of Work
- COTR Training
- CON 202, Intermediate Contracting
- CON 204, Intermediate Contract Pricing
- CON 210, Government Contract Law

Department of the Navy Acquisition Reform

- Writing Performance-Based Requests for Proposals

COLLEGES AND UNIVERSITIES

George Washington University Law School—Government Contracts Program

- Service Contract Law
- Contracting for Commercial Products and Services
- Schedule Contracting: How to Sell Commercial Products and Services
- Advanced Workshop on OMB Circular A-76
- Implementing OMB Circular A-76
- Cost-Reimbursement Contracting
- Formation of Government Contracts
- Administration of Government Contracts
- Government Contract Law

University of Virginia—Center for Continuing Education

- PC 507, Services Contracting

American Graduate University

- Managing Service Contracts

ASSOCIATIONS AND COMMERCIAL OFFERORS

National Contract Management Association

- Contracting for Services

National Institute of Governmental Purchasing, Inc.

- Contracting for Services

National Association of Purchasing Management

- Buying Basics for Non-Manufacturing and Service Organizations: Beyond Widgets and Production Lines
- Legal Aspects of Purchasing Services and Technology

American Bar Association

- Government Contracts for Services: The Handbook for Acquisition Professionals

American Management Association

- Fundamentals of Purchasing for the New Buyer
- Managing Supplier Performance: Measurement, Certification, and Quality Improvement
- Legal Aspects of Buying and Selling

BRTRC (Baum Romstedt Technology Research Corporation) Institute

- Performance-Based Work Statements

ESI (Electro Scientific Industries) International

- Best Practices in PBSC
- Contracting for Services
- Preparing Performance-Based SOWs

Management Concepts, Inc.

- PBSC
- Contracting for Architect-Engineer Services
- Service Contract Act Overview
- Advanced Federal Contract Law
- Introduction to Federal Contracting
- Procurement Planning
- Basic Contract Administration
- OMB Circular A-76: Performance of Commercial Activities
- Writing Performance Work Statements

Procurement Associates, Inc.

- Managing Service Contracts
- Managing Projects
- Government Program Management
- Basics of Government Contracting
- Government Contract Law
- Contract Management and Administration

Saenz International

- Contracting for Services
- Performance-Based SOWs
- Contracting for Architect/Engineer Services
- Intermediate Contract Pricing
- Contract Law

Northwest Procurement Institute

- Performance-Based SOWs
- Service Contracting
- Contracting for Architect/Engineer Services
- Contract Law
- Intermediate Contract Pricing

Dun & Bradstreet Business Education Services in Association With the Federal Market Group

- Writing a Performance Work Statement (Objective, Measurable Performance Standards—Outputs)

OMB CIRCULAR A-76 TRAINING

Numerous vendors provide A-76 courses. The following is a representative sample of such courses:

- Commercial Activities—Basic
- Commercial Activities for Managers
- Commercial Activities for Managers—Extended
- Commercial Activities Most Efficient Organization Study
- Commercial Activities Overview
- Employee Commercial Activities Participation
- Performance Work Statements for Commercial Activities
- Functional Performance Work Statements Workshop
- Quality Assurance Surveillance Plans

Appendix B

Skills Needed for Performance-Based Services Acquisitions

I. Organization of a Multidisciplinary Team

A. Assembling the multidisciplinary team
   1. Experience level
   2. Customer and supplier inputs

B. Defining team members' roles and responsibilities

C. Working in the team environment
   1. Team building and dynamics

II. Market Research

A. Primer on market research
   1. Information gathering
   2. Disposition of output

B. Gathering data to assess the services environment
   1. Identification of potential vendors and capabilities
   2. Identification of desirable systems and technology
   3. Identification of best practices and customary commercial practices
   4. Identification of industry performance standards
      a. Evaluating alternative or additional levels of standards required to ensure that the military mission is accomplished at the level of performance required
      b. Researching the feasibility of accepting alternative levels

C. Content of completed market research

III. Output-Oriented Requirements Development

A. Developing output-oriented requirements in a team environment
   1. Identification and analysis of all outputs
   2. Identification of the relationships between outputs
      a. Using tree diagrams or similar techniques to structure related tasks

B. Performance analysis
   1. Identification of acceptable performance and quality standards in quantifiable terms
   2. Identification of methods of performance measurement and sources of performance data
   3. Identification of best practices in performance measurement

C. Addressing organizational impacts

D. Regulatory analysis
   1. Identification of applicable regulations
   2. Performance-based services analysis
   3. Office of Federal Procurement Policy policy letter and FAR-based requirements

IV. Performance Work Statements

A. Developing a performance work statement in a team environment
   1. Quantifiable definition of outputs
   2. Definition of performance measures
   3. Linking output to performance measures
   4. Risk assessment
      a. Evaluating past performance
      b. Evaluating timeliness versus cost
      c. Evaluating organizational risk
   5. Incorporating industry standard practices

B. Drafting a performance work statement
   1. Sample performance work statements
   2. Use of precise terms (for example, specific and clearly defined contract goals, deliverables, and reporting requirements)
   3. Use of successful performance-based services contracts as models

V. Terms, Conditions, and Performance Incentives

A. Using and applying incentives
   1. Complexity and dollar value
   2. Positive and negative incentives
   3. Market motivators
   4. Examples of incentive structures, strategies, and techniques
      a. Using shared savings strategies
      b. Applying regulatory requirements

B. Structuring proper incentives
   1. Motivating performance to serve customer needs and missions
   2. Definitions of standard performance and maximum positive and negative performance incentives
      a. Aligning incentive to risk
      b. Using past-performance report cards

C. Resolving conflict
   1. Partnering
   2. Use of an ombudsman
   3. Use of alternative dispute resolution

VI. Tailored Acquisition Strategy

A. Tailoring the process
   1. Incorporation of market research
   2. Lessons learned from other service experience
   3. Relevance of past performance
   4. Consideration of contract administration costs

B. Obtaining industry input
   1. Solicitations for information purposes
   2. Draft SOWs
   3. Requests for comments
   4. Input from potential sources

C. Adapting to complexity of function
   1. Industry investment
   2. Competitive position

3. Type and length of contract
4. Consolidation issues
5. Socioeconomic issues
6. Regulatory environment

D. Choosing appropriate contract type
1. Flexibly priced type
2. Fixed price plus award fee
3. Contracting officer's prerogative
4. Line item for transition period (ramp-up)

VII. Source Selection Considerations

A. Source selection in the multifunctional team environment

B. Developing suitable source selection criteria

C. Assessing past performance data
1. Tradeoff analysis

D. Determining best value
1. The importance of market research in assessing past performance
2. Incorporation of "lessons learned"
3. Establishment of proper evaluation criteria and discriminators
4. Balancing A-76 cost comparisons with best value

VIII. Planning the Transition

A. Creating the transition team
1. Team composition

B. Maintaining in-house capability
1. Who or what entity currently provides this capability

C. Communicating to pave the way for transition

D. Integrating a vendor into the team for seamless transition

IX. Performance Management

A. Developing a performance management plan
   1. QAP
   2. Surveillance plan
B. Creating a performance management team
   1. Membership
   2. Life span
   3. Dispute resolution processes and procedures
C. Output metrics
   1. Quality, quantity, and timeliness
   2. Link to mission

Appendix C

Case Study Candidates

THE C-17 FLEXIBLE SUSTAINMENT PROGRAM

The C-17 flexible sustainment program requires the contractor to provide logistics support, including heavy maintenance, painting, and some major inspections of the C-17. Under the flexible sustainment contract, the contractor will add material management, spares procurement, warehousing, heavy maintenance, and engine maintenance to the tasks it had been doing through interim support contracts logistics support, sustaining engineering, repair, and mission capability support (that is, provision of mission-critical spares and maintenance). Through flexible sustainment, this program is intended to apply a greater use of commercial practices to increase efficiency and to lower costs.

MAXWELL AIR FORCE BASE

The most current example of an integrated, base-related acquisition is that of Maxwell Air Force Base. This acquisition covers information technology, community, custodial, emergency management, energy management, engineering, environmental, transportation, site maintenance, housing, human resources, airfield support, supply, operations and maintenance, space management, and several other base-related support services. It envisions using about 100 metrics to measure the level of performance provided for these services; measured "customer satisfaction" plays a key role as a metric in every activity above.[26] This acquisition's business strategy is built upon the following foundational principles:

- The sourcing process and contract concentrate on communicating the outcomes the supplier is expected to achieve.
- The supplier takes the primary lead in collecting performance data in an "open book" relationship with the Government.
- The Government will seek to gain insight into the performance of the service provider and reduce oversight whenever possible.
- By focusing on outcomes instead of the "how to" process, the Government will enable its supplier base to improve innovation and performance.

[26] AETC Performance Management Plan for the Maxwell AFB Base Operating Support Services. Solicitation Number F41689-99-R-0025. Amendment 6. HQ AETC/PK. Randolph AFB, TX. 30 June 1999. For more information, see http://www.eps.gov/.

- The relationship between the service provider and the Government will be a partnership committed to the mutual success of each party.
- The supplier will be rewarded proportionately based on performance achieved against outcomes communicated in the performance requirement documents.

These strategic principles rest upon developing a new performance management core capability within AETC and applying this capability to the administration of the contract. Envisioned as part of this program is the formation of a Performance Management Flight to perform the functions of a centralized performance management office. Also envisioned is an active Performance Management Council chaired by the Wing Commander.

JOINT BASE OPERATING SUPPORT AT KENNEDY SPACE CENTER AND CAPE CANAVERAL AIR STATION

The joint base operating support contract for the National Aeronautics and Space Administration's Kennedy Space Center (KSC) and the Air Force's Cape Canaveral Air Station (CCAS) is a good example of a performance-based services contract. The SOW is approximately 100 pages long, the contract is valued at approximately $200 million a year, and the specific performance standards run about 20 pages. Extracts of the Statement of Work are provided in Appendix G. The full contract can be reviewed at www.pafb.af.mil/45SW/JPMO/contract.htm.

COMMERCIAL EXAMPLES

Many buyer-seller pairs have been willing to share their stories with the Government in various contracting workshops around the Air Force. Sources of relevant examples of buyers of facility management services include IBM, Tektronics, and Bank of America. IBM is an especially interesting source because this firm entered the PBSC environment relatively early and has tried variations on it at several sites. A study based on multiple sites could synthesize a single training case at one site with periodic decision points that students must address. Students could use the historical experience to provide input on contingencies to be considered at each decision point in the training.

U.S. POSTAL SERVICE HANDWRITTEN IMPROVEMENT PROGRAM

The Handwritten Improvement Program for the U.S. Postal Service (USPS) is an excellent example of a performance-based services contract. Although the USPS is not subject to the Federal Acquisition Regulations, this program could be used as a case study exemplifying performance-based contracting principles. The supplier in this program, which was awarded based on a competitive solicitation, is required to increase the successful "read rate" for handwritten envelopes from a baseline of 25 to 50 percent. The supplier will be paid $3.7 million, up to a maximum increase of 25 percent ($93.5 million) for each 1 percent increase in read rate. To date, there has been a 34 percent achievement in read rate from the base of 25 percent. Under this contract, the supplier pays for all research and development, software, and hardware upgrades.

Appendix D
Example of Good PBSA

EXCERPTED FROM THE JOINT BASE OPERATIONS AND SUPPORT CONTRACT, PATRICK AFB

2.2.2 Refuse, Pest Control, and Grounds Maintenance. SGS shall perform landscape maintenance, grass mowing and care, sanitation (trash pick up and disposal), and pest control for assigned facilities, systems, and equipment. This includes inspection, maintenance, repair, and operation of roads, parking areas, ditches, bridges, and heavy equipment. SGS shall be responsible for all engineering, operation, and maintenance required to perform work related to these functions.

SGS shall consolidate refuse collection and disposal contracts to realize savings from economy of scale. SGS shall mount a video camera adjacent to the land fill operations to supplement landfill monitoring and record disposal activities, reduce staffing, monitor tippage from the weigh station, and improve integrity of documentation. Video shall be saved on CD and monitored remotely via J-BOSC Intranet. To comply with state permit requirements, one landfill operator will be on duty at all times that the landfill is open for disposal activities. This operator will physically witness all tippage and will sign off on manifests as appropriate.

SGS shall maintain the grounds at KSC, PAFB, CCAS, and the Florida Annexes. SGS's goal shall be to ensure that all grounds present a professional appearance to users and the public at all times.

2.2.2.1 Roads and Grounds. SGS shall provide roads and grounds maintenance at CCAS, PAFB, PAFB Housing, and the Florida Annexes. SGS shall provide engineering to analyze and make recommendations for road rehabilitation contracts. SGS shall sweep, vacuum, and maintain the concrete SLF runway and parking aprons, and the SLF tow-way to K6-894 (OM and K6-848 (VAB) to maintain an environment that is free of foreign object debris (FOD) and ready for Orbiter landing and towing operations. SGS shall provide operator coverage 24 hours a day, 7 days a week for the NASA Causeway (Indian River) and Haulover Canal drawbridges and shall operate the NASA Causeway (Banana River) drawbridge and Jay-Jay railroad bridge on an on-call basis.

SGS responsibilities shall include grass mowing, edging or trimming; eliminating weeds; applying fertilizer; maintaining the landscaping; cleaning up debris; watering; and maintaining the watering system.

SGS shall operate and maintain all Government-furnished equipment (GFE) provided for this contract. Operators shall be properly licensed and equipment shall be maintained in safe and reliable condition.

SGS shall provide grounds and landscape maintenance for KSC, CCAS, the Florida Annexes, and PAFB common areas, athletic fields, vacant Military Family Housing units, and recreation areas (except the PAFB golf course, the NASA KARS facilities, and occupied family housing). SGS shall maintain athletic field line markings.

SGS shall maintain a planting program for improved and semi-improved "A" areas. This task includes pruning trees, shrubs, and hedges and removing the cuttings; replacing grass sod; and removing stumps and dead plants. SGS shall maintain grass, shrubs, and trees in a healthy green color.

2.2.2.2 Pest Control. SGS shall provide pest control for KSC, CCAS, PAFB Family Housing, and the Florida Annexes. SGS shall develop and implement a pest control program. All buildings, facilities, and outside work areas shall be inspected and sprayed at a frequency necessary to prevent damage to structures and control pests that may affect health and morale.

SGS shall provide turf pest and disease control for PAFB using off-base premixed chemicals. SGS shall respond to trouble calls for pest control service.

2.2.2.3 Trash Collection and Disposal. SGS shall collect and dispose of refuse, bulk items, and yard waste for PAFB housing, KSC, and CCAS. For the Florida Annexes, SGS shall only collect, transport, and dispose of refuse. SGS shall also remove and dispose of dead animals from the roads and near buildings or populated areas on KSC, PAFB, CCAS, and the Florida Annexes. SGS shall provide special refuse handling at PAFB, CCAS and KSC for International Regulated Food Waste and trash resulting from food products obtained outside the United States and shall operate the CCAS C&D, CCAS Asbestos Monofill, and KSC Class III landfills. This refuse task includes providing services to empty compactors and containers for CCAS and KSC and refuse removal services for containers at the CCAS Picnic Pavilion, CCAS Museum, PAFB Military Family Housing playgrounds, and at launch viewing sites. SGS shall collect recyclables and dispose of them appropriately for NASA only.

SGS shall support the transition of pest control at CCAS, refuse collection of CCAS and PAFB, athletic fields maintenance at PAFB, and ground maintenance at CCAS, PAFB, PAFB Housing and the Florida Annexes.

Performance Standards		
2.2.2-1	(DS)	No dumpsters shall be visibly overflowing, and dumpsters shall be maintained to meet peak load demands.
2.2.2-2	(DS)	Animal carcasses shall be cleared from roadways within 4 hours of notification.

2.2.3 Family Housing Maintenance. SGS shall provide maintenance and repair services of all PAFB family housing, including General Officer Quarters. SGS shall provide recurring housing maintenance support including appliances, key and lock control, U-FIX-IT stores, telephone lines and jacks, playgrounds, gazebos, fishing piers, bus stops and mailboxes, well water systems, and family housing cleaning services. SGS shall manage the family housing furnishings program, including appliances. Family Housing maintenance at PAFB will be transitioned into the J-BOSC per Section B.

Performance Standard		
2.2.3-1	(PS)	Change of occupancy maintenance (COM) shall be complete within five (5) work days of receipt of quarters from MFH management.
2.2.3-2	(PS)	Valid customer complaints regarding response to and accomplishment of planned or non-planned work orders shall not exceed 5% of total customer complaints received.
2.2.3-3	(DS)	Pest control non-planned work order response shall be completed within 24 hours.

2.2.4 Custodial. SGS shall provide custodial services at KSC, PAFB, and Jonathan Dickinson Missile Tracking Annex (JDMTA) facilities, including facility cleaning; special events support; immediate response to spills, glass breakage, and overflows; and blood-borne pathogen cleaning. This task includes special cleaning requirements at PAFB pertaining to disaster and mobility exercises, and providing laundry and dry cleaning support for PAFB, towel service for fitness or exercise facilities at KSC (M7-355 and K6-1096), and specialized cleaning services for NASA and Air Force clean room/clean work area facilities and associated support equipment at CCAS (Facility numbers 01428, 01619, 01728, 01732, 49635, 55005, 60505, and 60680) to meet customer cleanliness requirements.

Custodial services at PAFB will be transitioned to J-BOSC by 2001.

SGS shall use engineering and personnel controls, housekeeping procedures, and contamination-generating constraints to monitor and maintain high levels of cleanliness in clean work areas. SGS shall implement all procedures specified in KCI-HB-5340.1, Payload Facility Contamination Control Plan. In addition, SGS shall apply the standard and alternate classes of air cleanliness for clean rooms and clean zones based on specified concentrations of airborne particles, as set forth in FED-STD 209E, Federal Standard Airborne Particulate Cleanliness Classes in Clean Rooms and Clean Zones.

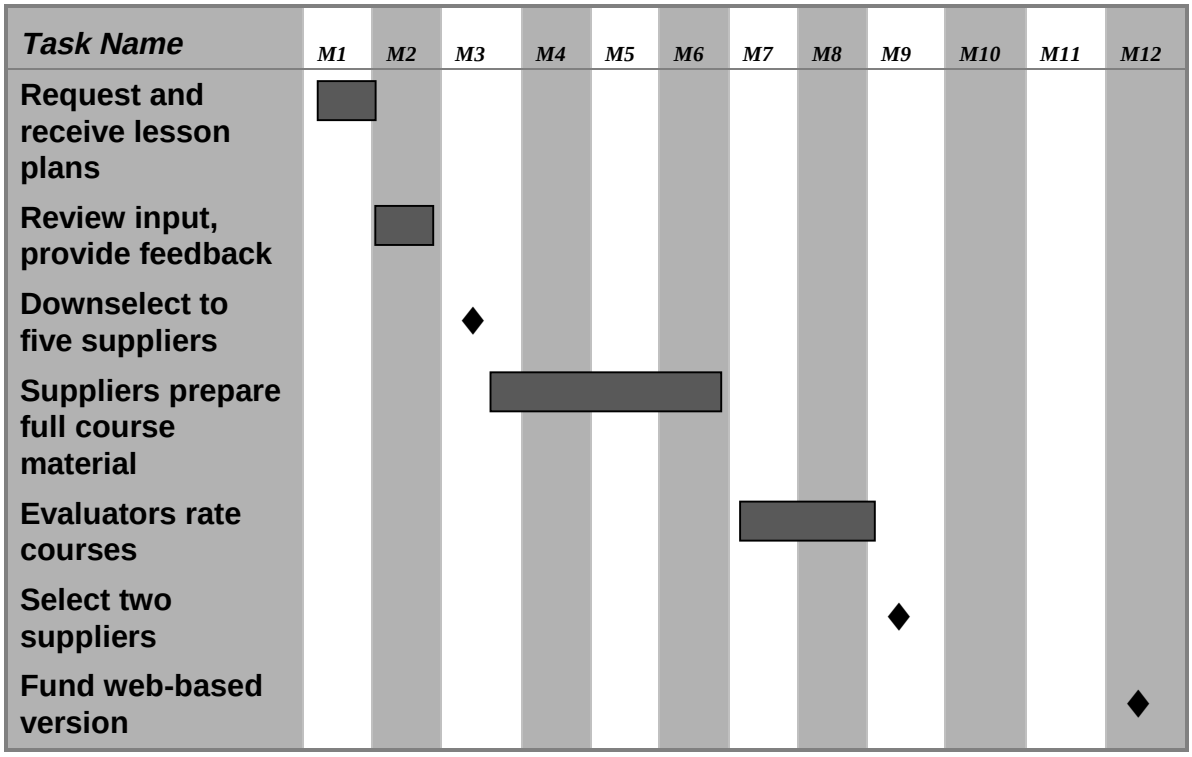
Maintain IM77 custodial cleaning workload database or equivalent.

Performance Standard		
2.2.4-1	(PS)	Provide response for spills/glass breakage/overflows, and blood-borne pathogen cleaning, within 20 minutes of notification for assistance during normal work hours and within two hours at other times.
2.2.4-2	(DS)	Areas should be clear of trash and debris, and be clean in appearance, with no more than eight validated customer complaints per month.
2.2.4-3	(DS)	Provide cleaning of KSC facilities to meet customer and mission requirements per SGS-documented schedules.

Appendix E

Schedule for Just-in-Time PBSA Course

THE SCHEDULE BEGINS ON THE DATE FUNDING IS APPROVED



Appendix F

Development and Delivery Cost

SUMMARY

The 912(c) Acquisition Workforce Training, Processes, and Tools for Service Contracts group determined that the present courses available are not adequate to prepare the acquisition workforce for the future. The study group has proposed the development of the Installation Services Just-in-Time training course, as well as the development of a DAU course elective, focused on CLS of major weapon systems. Below is a breakdown of the course development and projected training costs associated with these courses. The budget presented is projected from FY 99 through FY 03.

Development of these courses, in particular the Installation Services Just-in-Time training course, is predicated on obtaining necessary funding. Since this training is applicable to all Services and defense agencies, we recommend that funding be provided through OSD.

Summary of Requirements

Annual Estimate	Just-in-Time	CLS
Number of offerings	393	3–28
Throughput	5,760	60–1,320
Ratio (non-DAWIA/DAWIA)	Range of 3:1 to 6:1	All DAWIA
Instruction location	On-site	Ft. Belvoir, VA
Length	40 hrs	4 hrs
Personnel to be trained	69,743	TBD
Pilot training developed	TBD	June 99
FY99 funding required to develop	$300,000	$5,000
Add’l annual funding to deliver	$3,400,000	$5,000

FY99 Funding Requirements

CLS

DAU Elective Research/Develop*	$5,000
Estimated Funding Requirement	$5,000

***** The costs developed above are for DAU to travel to research and gather data for course development. Existing resources will be utilized for labor costs.

Just-in-Time

Course Evaluation (18 field representatives)†	$130,000
Training Needs Assessment/Contractor Support‡	$134,000
Miscellaneous	$ 36,000
Estimated Funding Requirement	$300,000

Note: To ensure relevant, fair, and objective evaluations of the course, representatives from field installations will be selected to participate. A notional site in the Midwest (Dayton, OH) was selected to approximate costs ($484) associated with airfare. The per diem rate ($161) is the Washington, DC, rate in accordance with JTR.

†Course development is based upon 18 technical representatives from the field (five individuals from each Service and three individuals from agencies). The length of the evaluation is projected at 6 weeks (42 days). The per diem rate is $161 per day and airfare at $484 per round trip.

‡Basis of estimate: Duration of assessment is 3 days. Costs associated with training assessment are per diem at $161, and airfare $686—two trips: $484 and $202 (CA). Contractor support is predicated on two individuals for 5 months at $158,000 per year. Contractor support includes the development of software to assist in evaluation of course material.

FY00 Funding Requirements

CLS

Annual Course Update*	$5,000
Estimated Funding Requirement	$5,000

*See FY99 projected costs related to this course assessment cost.

Just-in-Time

Website Development (2 each)*	$400,000
Course Instruction (including the annual course update)†	$3,000,000
Estimated Funding Requirement	$3,400,000

*Two websites are proposed. Website costs include course development, website installation, and course management throughout the year (maintenance). The contractor is to receive payment for service based upon the usage of the website throughout the fiscal year.

†Course development is based upon the target population discussed in Chapter 5. The estimate is based on 375 courses per year. Delivery cost is estimated at $8,000 per class, based on similar courses available in the commercial market. Per diem and travel costs are included in the estimate of $8,000 per class.

Annual FY01–03 Funding Requirements

CLS

Annual Course Research and Revision Evaluation*	$5,000
Estimated Funding Requirement	$5,000

Just-in-Time

Website Management	$120,000
Course Instruction	$3,000,000
Estimated Funding Requirement	$3,120,000

*See FY99 projected costs related to this course assessment cost.

Appendix G

Report on the Section 912(c) Training Needs Assessment at Andrews AFB, MD

6 MAY 1999

OVERVIEW

Procurement of a "just-in-time" PBSC course was a major recommendation of the Sec. 912(c) PBSA study was group. As preparation for the design of such a course, Maj Michael McGhee (SAF/AQCX) and Frank Camm (RAND Project AIR FORCE), as subject matter specialists, and John Polgreen (ANSER), as facilitator, conducted a training needs assessment based on recent experience with several OMB Circular A-76 studies at Andrews AFB, MD. They held three meetings on 6 May 1999 with participants associated with these A-76 studies and their supervisors.

The primary findings of the study were the following:

- The training needs identified in the 912(c) report were validated
- The priority need in technical areas was for training in requirements identification
- The priority need in non-technical areas was for training in teaming
- A priority need for understanding the entire acquisition process was identified
- Motivation and other attitudinal factors were viewed as very important
- Non-training inputs such as consulting were viewed as very important

PROCESS

Intense discussion among the 912(c) study group yielded a list of training needs, which were presented in the group's draft report. This represented a high-level, headquarters view of training needs. To validate and refine these needs, it was decided that group interviews with teams actually performing PBSC and their supervisors would provide a ground-level view of training needs.

The process was iterative: the same core ideas were sifted by three separate groups—the 912(c) study group, members of teams actually conducting performance-based acquisitions, and the supervisors of the team members. The fact that only one facility was visited, plus the predominance of A-76 studies, affected the results of this study.

Details of the process are presented below:

- **Meeting One:** About 20 supervisors in all disciplines relevant to several ongoing A-76 studies at Andrews, including manpower, contracting, and relevant functions. Lt Col Manning, 89th Contracting Squadron, presided. We first described our agenda. Then, without influencing their views in any way, we elicited the group's training priorities relevant to PBSC. All needs were written on paper attached to the wall so that everyone could see and discuss them. We then discussed the Sec. 912(c) study group's understanding of the needs. Finally, we combined the two needs lists and reached a consensus regarding supervisor understanding of training needs for the proposed course. This consensus accepted the original 912(c) study group's list and added some new emphases.

- **Meeting Two:** About 15 participants in ongoing A-76 studies at Andrews, from all relevant disciplines, including manpower, contracting, and other functions. We described our agenda, elicited the group's training priorities relevant to PBSA (again all needs were written on paper attached to the wall), discussed the priorities identified in Meeting One, reached a consensus regarding a combination of the two lists, and discussed the Sec. 912(c) just-in-time training proposal.

- **Meeting Three:** Joint meeting of about 15 supervisors and participants from the earlier meetings. We first accepted the consensus needs list developed in meeting two. Then we discussed priorities among the needs identified and the desirability of using that training to yield "awareness," "user capability," or "expertise" in the team trained. We came to the consensus shown in the table below, although one individual staked out the position that all needs justified treatment to the "awareness" level only.

SUMMARY RESULTS OF TRAINING NEEDS ASSESSMENT—JUST-IN-TIME PBSA COURSE

Training Need	Skill Level Desired
1. OVERALL PROCESS	COMPETENT USER
♦ Acquisition terminology	
♦ Business process reengineering	
♦ Rationale of PBSC	
♦ Overall goals of acquisitions	
♦ Flowchart	
• Responsibility	
• Timeframe	
• Money	
♦ Award term process	
♦ Grading contractors	
♦ Accessing regulations	
♦ Using computers and the Internet	
2. TEAMING	COMPETENT USER
♦ Working cross-functionally	
♦ Forming a team	
♦ Roles of team members	
♦ Getting project started properly	
♦ Running a team	
3. MARKET RESEARCH	AWARENESS
♦ Gathering market data using existing information	
♦ Benchmarking best commercial practices	

4. DEFINING REQUIREMENTS — COMPETENT USER

- Developing performance standards
- Quantifying requirements—metrics
- Reconciling customer needs with DoD regulations and realities

5. WRITING THE PWS AND QAP — AWARENESS

- Writing a concise performance-based SOW
- Writing a QAP
- Identifying potential problems

6. MANAGING PERFORMANCE — AWARENESS

- Transitioning to a new contract
- Reacting to problems that arise on the provider's side
- Reacting to problems that arise on the ultimate customer's side

Of the six need areas, only one, "Overall Process," did not appear in the original needs list developed by the 912(c) study group (an understanding of the overall process was implicit, however, and was built into the "straw man" course design). Both supervisors and team members felt strongly that understanding of the entire process was a key to the success of an acquisition.

NOTES

The meeting participants were cooperative, open, focused, and knowledgeable. The meetings were extremely productive and constructive.

Because of the audience's experience, the discussion emphasized issues related to Air Force A-76 studies. That best reflected the experience in the room. But the vast majority of these comments can be applied more broadly to PBSA throughout DoD without losing much content. We reminded the audience from time to time of our broader mandate, and their responses did not materially change when we did so. The notes below reflect the focus on Air Force A-76 studies in the discussions.

Frank Camm prepared these notes, which summarize the discussion in the three meetings.

Where an issue came up again and again in different settings through the three meetings, it is highlighted below as a "persistent issue."

Key Findings

Training is not the only problem associated with A-76 and PBSA and probably not the dominant one. Most people in the meetings had serious reservations about the A-76 process; similar reservations would likely apply to broader PBSA policy as well if we had met with a group that had recent experience on PBSA issues.

The needs assessment confirms the value of the proposed Sec. 912(c) just-in-time course in fairly close detail. Training needs elicited at Andrews valued a "survey course for non-majors" very highly. Without any specific input or encouragement from us, the meeting participants identified the key elements of the proposed just-in-time course as being among their highest priorities. Most participants would welcome such a course and believe it would be better than the training they received. Most participants suggested that additional training, beyond the just-in-time course, would probably be required on selected specific topics to develop more in-depth knowledge on a PBSA team. We did not discuss where that training might come from.

The discussions identified three issues that the Sec. 912(c) task force did not discuss in any detail, but that probably deserve close attention in any just-in-time course:

- Motivation is a major issue in A-76 studies and PBSCs, particularly for civilians whose jobs are at risk. Until all relevant personnel are motivated to participate effectively in a study or PBSC, training is irrelevant. Effective motivation should receive higher priority. Training is one of several devices that DoD can use to improve motivation.

- The individual participants who conduct studies and PBSCs day-to-day need very basic information about how an A-76 study works, what the basic roles and responsibilities are, etc. The more closely the case used in a just-in-time course captures the basics relevant to the base where the just-in-time training occurs, the easier it will be for these participants to benefit from the training. Customization is important! Customization may require some specific A-76 elements, even if the general just-in-time course focuses on broader PBSA issues.

- These individuals may also require some basic remedial training to help them prepare for the just-in-time course. The most obvious is training to help them use basic computer software (such as word processing and e-mail) and websites with confidence. Such remedial training should be coordinated with the just-in-time training.