2001

Executive Research Project

CASE STUDY
COMPLEX BUSINESS MANAGEMENT
for
COMPETITIVE SOURCING

GS-15

Mr Randall J. McFadden

Department of the Air Force

Faculty Research Advisor

Dr Paul Needham

The Industrial College of the Armed Forces

National Defense University

Fort McNair, Washington, D.C. 20319-5062

Table of Contents

1 Introduction

1.1 The Issue. In 1995, the Defense Science Board recommended the military services consider outsourcing, now called competitive sourcing, as a means to reduce operations and maintenance (O&M) costs. Competitive sourcing is simply another term for outsourcing that accounts for the possibility of the public sector competing along with the private sector on Department of Defense (DoD) outsourcing opportunities. The DSB outsourcing initiative was geared towards allowing the military to focus on core defense responsibilities and transfer expected O&M savings to defense modernization. In response to the recommendation of the Defense Science Board, then Air Force Chief of Staff, General Ronald Fogleman, issued a memorandum to all the Air Force Major Commands to implement an outsourcing process that increases the contract opportunities for commercial service providers (attachment 1). Therefore, Air Force leaders charged ahead with implementing the outsourcing of non-core activities with great expectations for increased performance at reduced cost. However, officials had no idea how difficult or complicated this initiative would prove to be. Cultural, process and execution barriers were not anticipated and eventually undermined the ability and will to produce an effective outsourcing program. Today, seven years later, Air Force outsourcing has yet to reach its savings potential, be embraced for its benefits, or recognized for its limitations. The primary reason lies within two distinct cultural issues. First, the Air Force failed to consider and mitigate the human factors affected by transferring execution of traditional in-house functions to the private sector. Second, Air Force leadership failed to recognize the complexity of managing contract operations while integrating those operations into the daily execution of Air Force units and missions.

1.2 The Background. The collapse of the Soviet threat and declines in the resources available for national defense have led the United States to rapidly decrease the size of its military forces. As that drawdown occurred, policymakers became increasingly free to focus on fundamental questions about the roles and missions of the military services in the post-Cold War era. Among the issues to be resolved, in light of the dwindling defense budget, were the appropriate roles of the public and private sectors in supporting the Department of Defense. More specifically, the issue of leveraging industry's vast capability to perform a myriad of functions through outsourcing came in to view. DoD's motive for this endeavor was to free up scarce funds to reinvest in force modernization programs. Empirical data shows that performance increases and costs decrease when outsourcing is effectively employed. Numerous studies involving over 2000 cases show that average savings of 20 to 40 percent are achievable.

1.3 Study Approach. This study examines DoD's outsourcing barriers and frames the management of competitive sourcing as a complex business management problem. The problem requires human capital investment and cultural organizational change to produce expected results i.e. responsive service at reduced costs. The study first examines in detail the rationale for employing outsourcing to produce efficient execution of non-core activities and free up scarce resources. Core activities are those deemed primary and directly related to the organization's purpose. All other activities, normally support in nature, are non-core. The study then explores the cultural, process and execution barriers that must be mitigated to perform effective outsourcing. Next follows an explanation of why management of competitive sourcing requires an integrated cradle to grave approach and a complex business management capability, established within the correct organizational culture, to be effective

and produce desired results. As a roadmap for the future, the study introduces an institutional concept model for complex business management of DoD competitive sourcing initiatives. To illustrate the approach, a real world structural example is provided along with some of that organization's remarkable successes. Finally, I'll elaborate on some ideas and advocate extending the complex business management concept to applications at all levels of DoD. I'll conclude that with proper senior leadership support, education about the benefits of outsourcing, and appropriate investment in human capital complimented by a compatible culture, competitive sourcing to leverage industry capability and free up scarce resources can be achieved.

2 Why Competitive Sourcing?

2.1 Rationale. In the early years of outsourcing, the most prominent contracted activity was computer services, data center management, and data operations. Today, companies are expanding their outsourcing view to include a variety of other functions and tasks. Organizations are increasing their outsourcing scope, which now range from simple vendor relationships to dramatic partnerships that reshape their entire organization. There are a number of reasons organizations are considering outsourcing. The most common include: cost savings, access to skills not available in-house, increased performance, flexibility, and the ability to focus on organizational core competencies.

The most cited reason for companies to outsource is cost savings. "Initially, outsourcing was something very large companies did that were in financial trouble" says Frank Casale, executive director of the Outsourcing Institute. "Now, it's more accepted as a strategic-management tool for use by organizations of all sizes as compared with a last-second maneuver by a company that has run out of choices."[i] American firms spent over $100 billion

in outsourcing in 1996, which cut their costs by 10%-15%.[ii] Outsourcing reduces costs by using organizations that provide a single service or product. These "specialists" organizations have a lower cost structure and can take advantage of the economies of scale associated with providing and focusing on a single service or product. Specialized organizations achieve this economy of scale by providing bulk quantities of high quality, focused services and products to many different clients.

Outsourcing provides organizations with inexpensive access to technology and skills not available in-house. Through outsourcing, organizations can gain access to specialized, sophisticated expertise without having to make a large capital investment in equipment and personnel. An example where this strategy is most useful is when an organization is conducting research and development, implementing a new business strategy, or expanding their human resource functions. Organizations may also consider outsourcing to augment their own staff. This is especially useful when an organization faces a shortage of experienced personnel. Outsourcing provides a vehicle for obtaining temporary skilled employees until the shortage is over. "Many organizations want a Cadillac, but there budget will only buy a Chevrolet," says Jack Erdlen, president of the Strategic Outsourcing Inc., a Wellesly, Mass. firm that supplies human-resources management. "So they lease a Cadillac on a temporary basis". [iii]

Organizations can also use outsourcing to gain access to state-of-the-art Information Technology (IT). Development and maintenance of IT applications are viewed as one of the fastest growing components of outsourcing. "As reported in the 1995 Ernst & Young/ABA Special Report on Technology, this area is projected to quadruple in contract size over the next five years."[iv] In order to manage the cost of computer hardware and trained

professionals, many companies are turning to outsourcing. If an organization outsources IT successfully, they will have access to the latest in information technology without having the cost burden associated with that technology.

Outsourcing also provides organizations flexibility to adapt to the uncertainty of today's economy. Outsourcing in effect changes fixed costs into variable costs. Organizations have more flexibility in controlling and modifying these variable costs since they control the scope of their outsourced requirements. This places organizations in a better situation during periods of economic change and uncertainty. Outsourcing reduces the burden of managing and performing tasks that are not central to the organization's primary mission. In fact, Ron Stratton of Arthur Andersen Consulting feels that outsourcing should be considered if the task is not part of an organization's core competency, especially if the task is non-strategic or complex. Outsourcing these tasks allows organizations to focus on their core competency functions which improve overall organizational efficiency.[v] For example, a manufacturing company might be wise to outsource their information applications which will allows them to concentrate on improving the manufacturing processes. However, it is important that a company not outsource functions that are critical to operations in order to prevent the organization's main functions from being dependent on external sources.

Outsourcing has affected every sector of our economy, from the government to private industry, as well as, from the service sector to manufacturing. Although the term "competitive sourcing" is new, the concepts of outsourcing have been used throughout society for several decades dating back to the 1960's. There are many examples of companies who employ outsourcing successfully. I'll focused on a few companies who were successful in achieving significant cost savings, increased efficiency in production or service, and improved

competitiveness in their business sector. In general, these examples support the idea that when used properly, outsourcing can be an effective way to maintain, as well as, improve activity performance and service delivery while reducing operational costs.

2.2 Industry Examples. AGCO, a manufacturer of tractors and farm equipment, first started outsourcing requirements to survive the agricultural industry depression during the 1980's. AGCO survived this industry crisis by taking advantage of their competition's excess production. AGCO, who once internally manufactured all of their farm components, decided to outsource about 75% of these components to competitors. Consequently, AGCO was able to reduce their costs for these components. "Because of the depression, there was tremendous excess capacity in our industry and we could buy our components and some other goods at a low cost from our competition," explained AGCO's chairman and CEO Robert Ratliff .[vi] The ability to buy components cheaply on an as needed basis saved the company warehousing costs and reduced the risk of producing products that might not sell. AGCO presently outsources about 50% of its parts from competitors. AGCO anticipates retaining the current 50-50 balance of internal parts production and outsourcing for many years. "Our level of outsourcing allows us a lot of flexibility in the event of a downturn," Ratliff says.[vii] Through outsourcing, AGCO has effectively passed the cost of managing their inventory to the competition.

Boeing Commercial Airplane Group has increased the number of parts it obtains from external suppliers as part of a campaign to cut costs and boost competitiveness. This shift to lower fixed costs by using external suppliers is, "imperative if we're to remain the no.1 manufacturer of commercial jetliners," says Robert Dryden, Executive Vice President of Airplane Production.[viii] Boeing is currently conducting a study to determine the

organizational impacts of outsourcing most of the Boeing built aircraft components. Initial reports estimate Boeing could save approximately $600 million a year in recurring costs by obtaining these components from outsourced manufacturers. This increase in outsourcing is part of a larger Boeing effort to streamline operations and reduce cycle time. One in-house product already outsourced is the insulation blanket. The company saved nearly $50 million a year on the 737/757 program on this decision alone.[ix]

2.3 DoD Examples. Outsourcing has proven itself a viable business tool in today's competitive market. As companies are continually looking for ways to decrease costs and increase efficiency, outsourcing is becoming an increasingly popular business alternative. These benefits can also be achieved by the Department of Defense. Contrary to popular belief among service members, outsourcing has had notable successes within DoD. For example, two service organizations have successfully outsourced military requirements while still maintaining full operational mission capability. They are the Military Sealift Command of the US Navy and the US Air Force Air Combat Command.

One of the Military Sealift Command (MSC) missions is to use shipboard platforms to gather counter narcotic intelligence. The platforms that MSC uses to accomplish this mission are three T-AGOS units. When MSC was planning the design and manning of the T-AGOS units, they researched an innovative concept using outsourcing. This concept was to use military personnel in the intelligence gathering operations, while outsourcing all other shipboard functions to the Merchant Marine. Since this concept showed a potentially large cost savings, the MSC decided to implement this strategy. The T-AGOS units are currently manned with 18 military personnel whose only responsibilities are the gathering of intelligence information while underway. All the other shipboard functions, such as manning

the bridge and engineering plant, food service, as well as hull and equipment maintenance, is outsourced to Merchant Mariners.

MSC has redirected some of the cost savings achieved through outsourcing to modernize and automate the intelligence gathering tasks. As a result, the performance and savings of the T-AGOS units has been almost unbelievable. Mr. Dave Wolfe (MSC) indicated that the T-AGOS units are operating at 1/5 the cost of the next major combatant while able to provide the same counter narcotic intelligence as an AEGIS Class Cruiser. This performance is an example of how the MSC concentrated on their core mission, intelligence gathering, while outsourcing all other functions.

Another example that supports the advantages of competitive sourcing and the magnified benefits possible from alternative approaches to outsourcing is the ACC Tethered Aerostat Radar System Program (TARS). The TARS Program provides low-level, look down surveillance of the U.S. southern border in support of the country's counter narcotics war. In 1991, congress mandated consolidation of the pieced together system controlled by U.S. Customs and the U.S. Coast Guard. To facilitate the consolidation, congress instructed the Department of Defense to take control of the project and consequently the Air Force and ACC assumed responsibility for the management of the TARS network. The first challenge for the Air Force was to determine how to man the network and make the system more robust and logistically supportable for the future. The network consisted of twelve independent sites, which used non-standard, incompatible, and aged sensors attached to non-standard, non-compatible site unique aerostats. An aerostat is a helium and air filled balloon, similar to the famed Goodyear Blimp, but two to three times the size. The aerostat flies unmanned on a 15,000-ft tether attached to the ground.

Seven of the TARS sites were contracted independently to several different contractors. The remaining sites were manned by government personnel. The total annual cost of the system under this configuration was approximately $120 million. Given the availability of Air Force (AF) personnel, the option to contract out all site activity became the favored and most likely way ahead. A modest manpower cost comparison of the contracted versus government manned site configuration indicated a potential savings of around 30%. The expected savings were primarily due to economies of scale; lower manning levels and lower individual manpower costs to accomplish the same effort using a contractor. The AF also desired to consolidate all of the contracts under one large Operation and Maintenance (O&M) contract with one contractor operating the entire system. The savings from outsourcing and consolidating the entire effort was expected to save approximately 25% to 30% of the annual budget. The Air Force then planned to use the savings to modernize system equipment throughout the TARS network.

In October 1992, the AF awarded the first consolidated contract through a competitively negotiated procurement to Loral Aerospace Services. The first year cost to run the now outsourced and consolidated system was $69 million, a savings of over 42%. The savings were used to initiate a five-year modernization program. Today, through even more savings and a few closures, the program provides an effective and efficient surveillance network across the U.S. border that costs $41 million per year to operate. The savings represent a 65% reduction in system costs generated from the initiative to outsource the entire network and take advantage of economies of scale through consolidation.

3 DoD Barriers to Competitive Sourcing

The preceding rationale for organizations to engage in outsourcing clearly identifies the potential benefits. This potential is well supported by the successes summarized by the industry and government examples. Unfortunately, outsourcing is not an easy path to greater efficiency and savings. Inherent organizational barriers prevent outsourcing success. Here is why. The decision to employ outsourcing infers a leadership decision to change the traditional execution of functions from in-house employees to an outside organization. This change in execution requires a fundamental transformation in management philosophy and organizational culture. Before that transformation can take place, organizations must look within and identify any inherent barriers to outsourcing in their existing structure. These barriers must then be mitigated or removed. For example, every organization that exists develops cultural norms, a particular knowledge base, specific processes, and unique methods of execution. The Department of Defense is no different and has the added feature of military traditions, which must be considered when employing outsourcing to improve organizational effectiveness. The established methods of operation within DoD organizations do not always support the transformation to competitive sourcing and often represent barriers to effective outsourcing. Barriers that must be dealt with. Specifically for DoD, these barriers include organizational culture, fragmented processes, fragmented execution and a lack of business knowledge.

3.1 Organizational Culture. Some of the most significant barriers to outsourcing within DoD are barriers associated with organizational culture. The DoD is a long standing, complex organization with multiple internal, independent organizations represented by the services. Each service embodies its own culture and military traditions; however, one

characteristic that is common to each is the independence and desire for self-sufficiency and control. These desires greatly influence their organizational structure, beliefs, and actions. Generally, in order to accommodate that self-sufficiency, each service has built functional capability across the spectrum of support needs from logistics to civil engineering to communications. Each service is functionally aligned with vertical stovepipes from the leadership level to the bottom of the organization. Each has its own unique culture, pride, loyalty, need for respect, and desire for resources to complete its contribution to the mission. We generally begin each member's career by functional orientation and determine individual success by functional competence with minimal lateral movement between functions. As a result, each service has created a functional environment that produces highly effective technicians proud of their heritage and protective of their domain.

Unfortunately, when these functions fall within non-core activities of an organization that is striving to improve efficiency and focus through competitive sourcing, the resistance of those within becomes a real barrier to change. Much of this resistance is born of mis-information and lack of understanding of the outsourcing decision and its implication. Outsourcing does not mean the function ceases to exist. It simply means others who are more specialized in that function or who perform that function as a core business will execute the field-level work and its immediate supervision. In most outsourcing scenarios, some level of management control, life-cycle management of the function, and management of the relationship with the contractor must still be performed. Although done with fewer personnel, in-house functional expert's best accomplish these management activities. Moreover, during transformation to competitive sourcing, in-house functional experts are critical to the process, as they know the functional requirements and performance standards to be achieved.

Ultimately, successful outsourcing requires loyalty to the organization, or in our case the service; over culturally taught functional loyalty. Organizations that effectively outsource recognize the cultural barriers, reduce resistance through education, and mitigate the impacts on affected individuals by providing multiple career alternatives for their future.

3.2 Fragmented Processes. Another common barrier to outsourcing is prominent within our fragmented processes. As a functionally aligned organization, our processes have developed along and within functional boundaries. Normally these processes require little or no interaction with other functional areas to produce outcomes. Consequently, ownership of most processes is homogeneous to the function. Just as the functional structure contributes to cultural barriers, that same environment produces sole ownership of processes and lack of process knowledge by outside users. This environment of independence creates process barriers to achieving flexible organizational results. Most organizations are not well experienced at process integration to produce innovative methods to solve multi-functional problems and generate solutions. This lack of interoperability becomes a strong barrier when attempting to gather data necessary to make intelligent outsourcing decisions, which, if utilized most efficiently, involve multiple functions and their processes. Competitive sourcing requires flexibility and integration among functions and their processes to be successful.

An example helps to illustrate the typical integrated processes involved with outsourcing. Within the Air Force, there are seven distinct organizational areas and their processes required to gather the appropriate data for leadership to make informed decisions with respect to outsourcing a function. Those organizations are the functional area being outsourced, manpower, plans/programs, civilian personnel, military personnel, financial

management, contracting and legal. Each of these areas has its own procedures to produce unique data that seldom correlates with other areas. Add to this the lack of service guidance on competitive sourcing and any single organizational entity that understands the outsourcing environment and you have a recipe for problems and poor decisions. The process barriers continue when you add the difficult to perform Office of Management and Budget (OMB) A-76 requirements that are applicable but developed for completely different goals back in the 1970's. Finally, you also have the Federal Acquisition Regulation (FAR) and its supplements, which are geared for major weapons system acquisition not services procurement. It is no surprise that DoD has difficulty realizing the benefits of an effective outsourcing program.

3.3 Fragmented Execution. Along with process barriers, the functional alignment within the services also produces inherent execution barriers, particularly, when outsourcing multiple functions under a single contract. Economies of scale maximize the benefits of outsourcing when considering multiple or large functions in a single contracted program. Again, the obvious integration and coordination problems with independent functions and processes degrade the effectiveness of the outsourcing initiative. Moreover, most people involved on the fractured government side fail to realize that the contractor is completely integrated and organized to accomplish the function contracted for to include single leadership. Unfortunately, that single integrated contractor leadership must deal with our independent functional areas and their associated independent leadership. The interaction normally results in conflict, competing interests, and inconsistent performance goals.

Our historical perspective with contractor support does not help us deal with the execution barriers mentioned above. The majority of our military members and DoD civilians

think of contractor support (outsourcing) in terms of their experience with simple, base-level, single-function contractor operations such as grounds maintenance or base laundry services. These early forms of outsourcing were generated through the original goals of A-76 studies to involve local businesses in local installation activities and contribute to the local economy while protecting DoD civilian jobs. These simple activities required little management, had simple performance criteria, and the loss of any control over these functions meant little to the functional areas that once owned them. Today's outsourcing goals are far loftier in terms of cost savings and divestiture. They require outsourcing much more technically oriented activities and complete programs that involve multi-functions, significant costs, reliable performance and complex management. Outsourcing also requires a fundamental change in our execution philosophy from that of total control over every aspect of the activity to limited control and accepting performance results while holding the contractor responsible for non-performance and corrective action. Activities that are core to our business and leadership that cannot accept these conditions should not outsourcing as a method of execution.

3.4 Lack of Business Management Training. The last barrier to effective outsourcing within the DoD is by far the lack of business management knowledge and training among the majority of its members. However, before briefly discussing this shortfall, it is important to recognize a related and fundamental paradigm that exists within the services. I believe this paradigm contributes to leaderships lack of recognition that outsourcing is complex business management and requires specialized business training. That paradigm is the belief that national defense cannot be compared to commercial business, and that a business mentality and its philosophies do not apply. Although I strongly agree that most high-level decision-making must account for many factors beyond those considered by

business, many business processes, tools and techniques properly applied to DoD operations and decision-making can lead to better decision outcomes. Defense goals are clearly different from business goals; yet, the effective application of business processes to aid decision-making can produce very effective operational and fiscal results. In addition, all the capability the services have in terms of assets, infrastructure, weapons systems, equipment, and contracted services originates from industry and commercial businesses. Even if we do not believe business practices and philosophy are applicable, we should certainly learn to understand them if we are to continue to rely on and partner with industry to enhance our own capability. The paradigm that business knowledge has little or no place in defense must be eliminated, particularly as outsourcing brings industry further into our daily O&M activities and touches more and more of our force.

Unfortunately, business management training is not provided to the majority of personnel in our services. Even among acquisition professionals, the level of business management training and the perspective it is taught with is woefully inadequate to level the field with our service industry counterparts. It is true that DoD has a tremendous focus on major weapon system project management and procurement that can rightfully boast many accomplishments. However, with increasing contracted services that impact more of our force and all of its functions, business knowledge and training in program management and innovative contracting must go beyond just our acquisition workforce. Because contracted O&M services must be integrated into existing service operations and management cultures, all functional entities involved in outsourcing must have some level of business knowledge. Knowledge that enables them to effectively manage the government's investment and adequately understand the contractor's decision-making and operations. Until all barriers are

mitigated, DoD will continue to struggle with competitive sourcing its non-core activities and may never achieve the cost, performance and focus goals it desperately needs for effective transformation and force modernization.

4 Outsourcing is Complex Business Management

There is a subtle but distinct difference between traditional procurement strategies for weapon system and major equipment/supply purchases and that necessary for effective competitive sourcing of non-core military activities. Historically and appropriately, weapon system and major equipment/supply acquisition followed an independent "project" course of action designed to develop and procure the item or system and hand it over to a field activity for use. The project mentality is greatly influenced by a defined beginning and end to the procurement activity and very specific project goals in terms of cost, schedule and performance. Contrary to what drives project management in the preceding scenario, acquisition of services requires a total "program" course of action that is still sensitive to cost, schedule and performance, but relative to a life-cycle of execution. "Project" execution is generally isolated and independent from the day to day activities and short term situational changes common in "program" execution of competitively sourced activities. Activities which must satisfy and integrate into the everyday operations and missions of the force. The constant flexibility and integration of industry performed activities to meet daily mission needs requires in-house knowledge of functional requirements and business knowledge of industry's decision-making and operational environment. Consequently, "program management " of competitively sourced O&M activities requires a complex business management capability that embraces a cradle to grave total program perspective to meet DoD requirements.

I do not say outsourcing requires a complex business management capability to imply traditional weapon system and equipment/supply procurement management is not complex or business-like. To the contrary, taking a weapon system from inception to fielding is very complex and requires much business knowledge to achieve effective and efficient results. I simply make the point that today's idea of competitive sourcing and it's program management are just as complex and require just as much, if not more, business knowledge as that of traditional procurement management activities. Today's activities are technically complex, require continuous contractual flexibility, a business sense, multi-functional interdependence and, due to global operations, an international capacity. All of this in a context of cradle to grave total program management and responsibility. Program management of competitively sourced activities may not have the glitter and glory of traditional weapons system project management, but it influences a larger part of the defense budget, touches more of the force, and impacts more and more of our capability. Let's briefly visit the important factors that make competitive sourcing require a complex business management capability to be successful.

4.1 Cradle to Grave System Management. First, we'll discuss the total program perspective that must be inherent in any competitive sourcing endeavor. Not only is this perspective necessary for life-cycle program management decision-making but the outsourcing process itself makes a total program philosophy paramount to being effective. As I alluded to earlier, there is a distinct break in project management between requirement identification, procurement and execution in traditional weapon system acquisition. Although there are heroic attempts in many project procurements to integrate the users, between requirements identification and transition to a fielded system users have limited influence and

many coordination challenges that often result in less than desirable outcomes. Unfortunately, these undesired outcomes are often the result of cost, schedule and performance trade-offs made by project decision-makers that do not necessarily meet the needs of the end user. Procedural breaks in who has responsibility may not be the optimum course of action, but given manpower expertise and operational constraints, DoD manages to make the process quite effective. Transferring responsibility to the "expert" acquisition officials during the distinct development and procurement phase seems expedient and has perceived limited shortfalls. Weapon system procurements are conducive to this segmented approach because they involve physical systems, hardware and equipment. The performance characteristics of these products are quantified and qualified by the users, procured by professionals isolated from operational impacts, and returned to the users for operational integration and execution.

Acquisition of O&M services through competitive sourcing is of a completely different nature. Whereas product quality and quantity are relatively straightforward to capture, service quality and quantity that directly affects daily operations and its changing environment is much more elusive. Contrary to service delivery, the product delivery processes can be removed from operational impact until perfected and fielded, which is exactly what occurs in weapon system acquisition. Because of the potential impact of service delivery on daily operations and mission capability, the requirement identification, procurement and execution of services must be a seamless integrated process that brings functional providers, acquisition professionals and the end users together for the life-cycle of the outsourced activity. Consequently, the entire process from the decision to outsource to the termination of the activity warrants an interdependent process performed by an integrated

team that embraces a cradle to grave decision-making perspective and maintains life-cycle responsibility for service execution.

4.2 Technical Complexity. With long-term total program management in mind as the over-arching requirement, competitive sourcing of today's non-core functions involves many other difficult aspects that contribute to the complexity of that long-term management. One such aspect is the increasing technical depth and diversity of activities earmarked for outsourcing. Earlier, I mentioned the familiarity most military members and DoD civilians have with early outsourcing triggered by OMB A-76 initiatives. Activities such as grounds maintenance, laundry, and food services represented the typical activity relegated to A-76 studies. These activities were characteristically single function, non-technical in nature, and relatively disconnected from daily operations and mission capability. As a result, the Services handled management of them accordingly by assigning quality assurance as an additional duty and relying on a contracting officer to administer, and by default, manage the activity.

Today, in order to truly leverage industry capability, divest non-core activities, and maximize cost savings; organizations must consider a much broader range of activities that involve much more complicated services than in the past. Functions such as aircraft and vehicle maintenance, avionics calibration, and IT system administration are technically advanced activities that are arguably non-core to our defense mission yet clearly linked to overall daily operations and readiness. Setting requirements and service level performance criteria, as well as, measuring that performance requires technical competence and the ability to understand the complex nature of the service. A service that is executed in a business driven contract environment and influenced by changing operational and mission needs. Combine that difficulty with the desire to contract multiple functions under single initiatives,

such as total base support, and you have a technically complex array of functions occurring simultaneously and interacting to the benefit or detriment of the mission. All this dependant on how the program is managed in relation to contractual boundaries and daily changing operational events. Moreover, these increasingly complex activities involve incredible amounts of government infrastructure and assets that, despite outsourcing their daily O&M, require in-house functional experts to manage their life-cycle care and upgrade through to disposition. Contractors with short-term renewable contracts will not perform life-cycle asset management in a manner acceptable to DoD and American taxpayers, as they have no economic incentive to do so. Finally, technical competence and responsibility for functional policy making with regard to the activity's application and support to Service missions must be retained in-house to maintain limited but decisive control and overall responsibility. Clearly, we cannot relinquish policy making and overall responsibility for needed activities to non-defense driven commercial entities.

4.3 Contractual Flexibility. In addition to the technical depth and diversity of activities, competitive sourcing is further complicated by the need for flexible contract terms and conditions necessary to respond to the daily changing operational needs these activities support. Again, the simple outsourcing initiatives of the past were easily accommodated by simple contract language, under fixed-priced terms, that were minimally impacted by conservative contract administration and strict interpretation of the Federal Acquisition Regulations (FAR). Program management of competitively sourced activities now require flexible, incentivized contract vehicles that can respond to a changing operational environment, while protecting both the interests of the government and the contractor. This capability requires functional managers and contracting officials to speak each others

language, while understanding each others constraints, in a daily interactive cultural atmosphere that produces responsive services to mission needs that a contractor can deliver within a business-like environment.

4.4 Business Knowledge. Business knowledge is the key to understanding and partnering with industry! If we seriously intend to leverage industry as part of our capability and want them to invest in our mission success, we must in-turn invest in their success. Unfortunately, the added business dimension further complicates DoD management's ability to align mission goals with corporate goals. Program management decision-making must balance operational needs with commercial business realities. Military managers need to re-think the earlier mentioned paradigm that defense operations have no place for business applications. They must become fluent in business management philosophy in areas such as financial analysis, cash flow, market influence, schedule control, negotiation, legal obligation, labor management, risk mitigation, and contract terms implication. Arguably, this knowledge not only helps managers understand the business driven motives of industry, but appropriate application of the same principles to our own decision-making can lead to more accurate data and information resulting in more effective outcomes. This business dimension clearly complicates the competitive sourcing environment. By embracing the reality of business in our defense culture we can not only effectively manage any competitive sourcing endeavor, but also apply our business acumen to better management of our defense capability as a whole.

4.5 Multi-Function Integration. If technical complexity, contractual flexibility, and the necessity for business knowledge does not complicate competitive sourcing enough, combine with it the effects of applying economies of scale. Application of the principle of

economy of scale results in large multi-function and multi-location outsourced activities managed under a single contract and/or program. Although this further complicates organizational management of competitive sourcing, the achievable cost benefits and consistency in service delivery, with minimal manpower dedicated to management, is a strong incentive to employ this proven approach. The complicating factor is the prioritization, coordination and simultaneous execution of multiple functional activities all in support of a single program. Each activity subject to changing needs, functional responsibilities, financial program constraints, limited program resources and demanding operational parameters must be balanced to provide mission responsiveness, maintain program integrity, and ensure long-term life-cycle asset viability.

4.6 International Capacity. The final major aspect of competitive sourcing that supports the premise that it requires a complex business management capability to employ successfully is the use of outsourcing in an international arena. I eluded to the fact that many initiatives seeking to maximize outsourcing opportunity involve activities at multiple locations. In doing so, with our vast dispersion of military operations both domestically and abroad, outsourcing of non-core military activities inevitably involves multiple states and indeed multiple countries. This interstate and international environment brings with it a whole host of issues from environmental protection to host-nation support to differing commerce regulations and even cultural sensitivities. Managing the impacts of all these forces on an already complicated program environment is no simple challenge and requires a multitude of expertise to achieve success. Given all the factors we've explored, I am absolutely convinced that today's competitive sourcing requires a complex business management capability. Unfortunately, DoD and the individual Services have yet to

recognize or develop this capability despite their stated desire to make competitive sourcing a viable means to reduce operational costs and focus on core military competencies.

5 A Way Ahead – Integrated Program Management

Up to this point, we've examined the rationale and benefits to outsourcing non-core activities to allow organizational focus and become more efficient in the execution of an organization's mission. We've also identified some of the major barriers that have prevented DoD from launching and sustaining a productive competitive sourcing program. Finally, we took an in-depth look at the complicated and diverse issues involved in competitive sourcing and concluded that execution of outsourced activities require an integrated complex business management capability that is not typically recognized or resident within most DoD organizations. Given the nature of the problem, its barriers and complexity, the obvious question of how to proceed from here comes to mind. The common reaction is to state competitive sourcing is too difficult and avoid pursuing any viable outsourcing options. However, DoD can ill afford to neglect the potential resource benefits competitive sourcing enables in this time of relative peace, declining defense budgets and national focus on non-defense priorities. The only reasonable approach to competitive sourcing is to embrace its concept while acknowledging its limitations, mitigating the barriers to execution, and developing an institutional complex business management capability to integrate and control its execution into DoD's missions. Fortunately, there exists a little known integrated program management model within the Department of the Air Force that has evolved over fifty years and embodies an institutional culture that produces a complex business management capability.

5.1 ACC Program Management Squadron – History. Within Air Combat Command Headquarters located at Langley AFB, Virginia is the ACC Program Management Squadron. The history of this unique unit dates back to the construction of the Distant Early Warning Line (DEWLINE) in the early 1950's. Although not recognized as such at the time, the DEWLINE represented the first major outsourcing of a critical, but arguably non-core, activity in the Air Force's brief history. This radar program was designed to be performed by military radar operators with contracted site support from its inception. As a result, the 4700 Air Defense Squadron (predecessor to the Program Management Squadron) was formed to manage and oversee the program's operations and contracted maintenance and support. The evolution of this multi-function management oriented unit into what is today a multi-program, complex business management organization serves as a model concept to overcoming the barriers and shortfalls associated with DoD's outsourcing execution. To illustrate, I'll examine the unit's organizational structure, unique training philosophy, cultural environment, and capacity for managing multiple programs at minimum manpower cost. Finally, we'll look at a few of the successes this unit's complex business management capability has achieved.

5.2 Organizational Structure. The organizational structure of the program management squadron is much like that of a Major Command but applied with a different philosophy. The organization contains divisions that coincide with the many typical functions necessary to manage, operate and support any type of outsourced program or activity (See attachment #2). The typical functions are logistics, civil engineering, communications and electronics, plans and programs, and finance. In addition to these standard support functions, there is quality assurance, contracting, legal and operational entities to match the operational

missions of the outsourced activities, and to serve as overall program managers. The mission of the organization is not to “execute” the individual support functions or the individual missions of the outsourced programs. This is what industry is hired to accomplish. The mission of this unique unit is to “manage” the execution of those functions by the contractor, “integrate” the contractor operations into the supported AF missions, look after the life-cycle management of the government assets, and “execute the business end” of the programs. Although it appears to be the description of a matrixed organization, it is not. Nor is it a stove-piped organization. The unit is a hybrid of each made possible by the central leadership structure at the top focused on total integrated program management as its mission. The Functional Divisions are established on par with the Operational Divisions. The Operational Divisions contain the individual program managers whose sole purpose is to manage and coordinate the overall activities of their particular program. Functional Divisions, although independent, provide the required functional support to the program manager and are evaluated by not only how they perform their functional responsibilities, but also how they support the overall program through the program manager. This is possible because the entire organization is under the single leadership of the organization's Director who has full and direct authority and responsibility for all assigned programs.

The obvious question at this point is to ask why not just create integrated management cells for each program that contains all the necessary operations and support personnel needed i.e. a matrixed organization. The reason is two-fold. First, the Program Management Squadron applied matrixed program management in the late eighties and early nineties and it simply didn’t work. Program managers focused solely on operational issues, used their power to divert functional capability and resources to other requirements, and often micro-managed

the program and its contractor to the point where normal checks and balances were removed or ineffective. For example, facilities normally kept to structural standards as part of civil engineering responsibilities would be neglected through deferred maintenance to free program funds. These redirected funds would then be used for operational items that may not have otherwise be a priority or be necessary from an unbiased total program view. The second reason a matrix organization failed, from a manpower efficiency point of view, was that all of the support functions have multiple disciplines within their particular function such as supply, transportation, and aircraft maintenance within logistics. There was insufficient manning to cover each discipline, in each function, for every program. For example, an independent logistics division with each of these disciplines can support multiple programs and program managers with fewer personnel and increased process continuity than if we attempted to man each program with each discipline independently. The key to countering the obvious control issue from the program manager is the accountability applied by the organization's leadership to the functional division’s performance.

Contrary to traditional thinking, the operational and standard support functions are not the only structural elements needed to manage complex outsourced programs. The cradle to grave integrated program management approach means the organization must not only have the expertise to develop operational and functional requirements and manage their execution. It must also perform the acquisition of the services and manage the business relationship associated with outsourcing to industry. Consequently, the organization has assigned and dedicated contracting personnel co-located with each program, co-located legal support, and independent quality assurance. Quality assurance not only monitors the contractor performance for the program and functional managers, but also evaluates the overall program

performance on behalf of the organization's Director. In establishing the organization under this structure, program managers maintain overall program coordination and control yet are free to concentrate on managing and integrating the contractors operational activities on a day to day basis. Functional managers maintain functional responsibility and control yet must integrate their priorities and activities through the program manager due to the accountability established by the organization's leadership. Dedicated and co-located contracting support integrates acquisition goals with operational goals. Program managers and contracting officers are side by side and focused on overall program success because contracting personnel can identify with and become more associated with the operational mission of the program. Co-located legal support integrates legal advice into the decision-making processes that impact acquisition strategy, day to day operational issues and individual program direction before those decisions result in legal problems. When legal problems do arise, legal advisors are already up to speed with program rationale and problem history as they have been integrated into the business management processes from the inception of the outsourced program. The independent quality assurance division provides the organizational checks and balances both within individual programs and for the overall organization. This unique division is directed and managed by professional quality assurance personnel who then train and certify operational and functional experts in how to perform sound quality assurance in their respective fields.

The organizational structure described above, assigned under single leadership, enables the total integration of functions and processes needed to manage any outsourced program from cradle to grave. The ACC Program Management Squadron serves as living proof of this structure's effectiveness. However, organizational structure is not the only

element necessary to create a complex business management capability. The organization must also learn to communicate internally, and with industry, in a complicated business management environment.

5.3 Business Management Training. The ACC Program Management Squadron has embraced the need for business management training by recognizing a common knowledge requirement that enables all processes necessary to outsource any activity. Moreover, they discovered that such a knowledge base facilitates communication and understanding across the many relationships formed when operators, functional experts, acquisition professionals and industry officials join together to outsource non-core military programs. The knowledge requirement is simply that associated with basic business management and more specifically, program and contract management in a business environment. Knowledge and understanding of what drives business decisions and business practices in industry enables operators and functional experts to develop requirements for activities in a manner compatible with what industry can be expected to provide. Program management skills such as work control, scheduling, cost control, performance measurement, and risk management are universal business knowledge tools that are not only utilized by industry mangers, but are applicable to our internal management of the overall programs. On the acquisition side, contract management skills provide the basic knowledge in negotiation, contract law, acquisition regulation, contract terminology, and contract development. These knowledge tools taught to all members enable a common understanding and communication process that facilitates process execution; fact based decision-making, problem solving and overall program integration. Perhaps even more important, this knowledge taught to government officials levels the playing field with our industry counterparts and provides the necessary tools to

truly reach partnering agreements and problem solutions that are beneficial to both industry and government alike.

Internal to the government, business management knowledge in the form of program and contract management provided to all team members enhances communication between contracting officials, program managers and functional experts. Contracting officials can better understand the problems and issues facing managers from an operational and functional point of view. In reverse, operational and functional managers can understand the constraints and impacts of various contracting approaches. Program teams with this common knowledge and language can now more effectively develop program requirements, determine acquisition strategies, respond to execution problems, mitigate risks and integrate program goals in an effective, efficient and coherent program.

The ACC Program Management Squadron recognizes the value of business management knowledge and the potential benefits of program and contract management tools taught universally to all its members. Initially, recruitment of members to the unit was based on their functional expertise or specialty with little or no business, program or contract management training in their background. The local contracting squadron provided contract support, which was dislocated from the organization. Most training was accomplished through on the job experience, usually a result of failure. Acquisition training was difficult to obtain and often the training provided by DoD weapon system acquisition schools was not applicable to long-term acquisition and management of outsourced services. To combat this problem, the unit turned to private academic institutions to attempt to find appropriate training in business, program and government contract management that paralleled training given to industry counterparts. In 1996, the unit arranged a partnership with the George Washington

University, School of Business and Public Management, to provide tailored training in program and government contract management. This was the same type of business management training the university was offering to the major defense contractors who were also looking for academically recognized professional training in the subject matter for its program managers. After several meetings and briefings on the unit's role and mission with university officials, the school proposed a dual track program leading to an accredited Master's Certificate in Program Management and/or Government Contracting. Each track involves five core courses in the subject i.e. program management or government contracting, and two related electives of which there were numerous choices. Each course required 40 hours of classroom instruction and each course culminated in a final exam. Upon completion of all five core courses and two electives, the student is awarded an accredited Master's Certificate from the university. To facilitate the training and availability of members, the unit arranges for university professors to come to the unit for one-week courses. Today, the unit continues the training for new members and maintains a level of approximately 60 to 70 percent of its members holding a Master's Certificate in one or both of the training tracks. The cost of this training is a cost of doing business and is factored into the annual program budgets. The initial year of training totaled approximately $400K to support a unit budget of over $170M in outsourced programs.

The overall results of the training proved to be more successful than originally expected. Although it is difficult to measure the value of education, the unit has dramatically reduced individual program costs and improved process efficiency. In the first industry negotiation to resolve a contractor non-performance issue held following the training, one program team recovered over 600K from a contractor despite work accomplished. An

unusual government outcome even with the non-performance. Team members in the negotiation attributed their success to the training they received. More important than the costs savings has been the overwhelming confidence, pride and enthusiasm the unit as a whole emulates in the conduct of its mission and associated business. The investment in human capital to provide the necessary tools to accomplish a difficult, complex management job has resulted in a highly motivated organization with a complex business management capability that has become the basis of its overall culture.

5.4 Integrated Culture. Despite the obvious benefits described in the structural and training elements of the ACC Program Management Squadron, the key to its complex management capability lies in the integrated culture of the organization. Often there are several cultures operating within a larger organization. This is particularly true when an organization of multiple function forms to execute the management of outsourced programs. There can be managerial culture, occupationally based culture, geographic proximity culture, functional culture, and business culture. The degree of difference among these sub-cultures is determined by the extent to which the problems each group has addressed in the past are similar or different. As a group acquires experience, they develop culture. Groups often maintain their identity by comparing and contrasting themselves with surrounding groups. The most effective groups are those that form a culture of their own, with their own language, assumptions for operation, and sets of attitudes. Building, maintaining and strengthening a feeling of togetherness among groups and group members so that they become capable of accomplishing things that individual groups cannot accomplish alone is critical to success.

The ACC Program Management Squadron acknowledged the problems of differing groups and cultures and created a new integrated culture ideally suited for complex business

management of outsourced programs. The first area the unit addressed was the set of attitudes within the organization. Typically, program managers were strictly operationally focused relegating the many support functions, which contributed greatly to their success, to the bottom in terms of program priority and recognition. This operational culture and attitude fostered resentment and conflict among groups, which deepened as unit history accumulated. To break this cultural trend the unit reorganized into the hybrid organization previously described in section 5.1. Establishing support divisions on par with operational program management divisions forced the two groups to work together to accomplish program goals. Unit leadership then began to enforce the equality by holding program managers responsible and accountable for total program integration. The functional managers were held responsible and accountable for functional integration within each program through the program manager. Disagreements and conflicts were elevated to leadership for resolution. Program and functional manager performance was expanded to not only include specific responsibilities, but how they integrated responsibilities for the good of the program. The new attitude throughout the organization became respect for each group's contribution and expertise, total program integration, and a sense that the combined assets of the unit represented a unique and special capability with unlimited potential. To further enhance the new attitude and reduce the geographic proximity differences, the contracting officers were co-located with program managers and a resident legal advisor was established.

The change in attitudes greatly improved the organizational environment in the unit. The next step was to establish a set of operating principles that cut across the many functions and programs, each of which had their own way of doing very similar types of work. With the exception of high-level program and functional policy, the policies and procedures for the

execution of work was the contractor's responsibility. The unit needed a consistent set of management policies and procedures that helped define the units overall management responsibilities and desired management culture. In searching for such a set of practices, the ACC Program Management leadership discovered the common thread between the various programs and their support functions was the business management of their respective areas. The unit also discovered it had no formal training capability to transform the operational and functional experts in its ranks to business managers capable of interfacing with the defense industry. As a result, the training program depicted in section 5.2 was established. From the common training came the common language necessary to create a stronger unit culture among the various groups. In addition, the common business training, in the form of program management and government contracting, formed the basis for a set of common operating procedures set forth as the unit business practices (attachment #3). Arguably, the combination of attitude change, common business language and practices created an entire new culture ideally suited to the complexity of managing multi-functional outsourced programs. It has also highlighted the significance of organizational culture in transitioning from an established method of operation to a new method of execution.

5.5 Organizational Capacity. The combined structure, training and culture of the Program Management Squadron evolved to become an extremely efficient organization in terms of manpower and program capacity. The flexibility of the organizational structure, the commonality in what it takes to manage any type of outsourced function or program, and the continuity provided by the common business culture make efficiency and organizational flexibility a reality. The foundation created by this organizational arrangement allows additional functions and programs to be added to the unit's mission with minimal manpower

increases. These increases can be sourced from a small portion of the manpower savings realized by the outsourcing of the function or program itself. For example in 2000, the Air Force was tasked to create three Forward Operating Locations (FOL's) in South America in support of counterdrug operations. These FOL's were needed to replace the infrastructure and basing rights lost when Howard AFB closed in Panama. Air Force leadership decided to have the FOL's base operating support provided by contract to industry (outsourcing). Rather than add the workload to the existing 12th AF staff, which was not integrated nor geared to outsourced execution, or create an entire new organization with all the various functional capabilities needed, the Air Force tasked the ACC Program Management Squadron to manage the effort. By creating a new three person program management cell within an existing operational division, adding a few functional experts to the various support divisions, and establishing a dedicated five person quality assurance staff, the ACC Program Management Squadron successfully integrated the program into the organization. The numbered AF staff was requesting some 100+ authorizations to augment its staff to handle the same workload.

Today, the ACC Program Management Squadron manages eight separate outsourced programs located in ten different countries with over 32 operating locations. The contract value of the programs exceeds $860 million and the programs have combined assets and infrastructure totaling $3.5 billion. This is all accomplished within a specialized organization of 135 members who have created a unique complex business management capability that is a model for executing outsourced functions and programs. The future capacity of this organizational model is only constrained by the limits of span of control applied.

5.6 Real – World Successes. Metrics associated with the efficient and effective use of outsourcing and the management thereof are difficult to identify and still require further

development. Typically, metrics remain tied to the specific function or program outsourced in the form of overall reduced cost, mission capable rates and life-cycle asset performance. Overall management effectiveness in terms of responsiveness, program cost avoidance and delivered service quality are subjective at best and still represent a field which requires much examination. However, this case study wouldn't be credible without identifying some specific successes the ACC Program Management Squadron has achieved through its complex business management capability. In section 2.0, we examined the government's use of outsourcing for the Tethered Aerostat Radar Program where program costs were reduced over 50% from $120M to less than $50M. Within that program, we also discussed the negotiated $600K recovered in a non-performance dispute with an aerostat manufacturer that unit members attributed directly to the skills learned through business management training. There are numerous other examples of the unit's successes of which we'll identify just a few.

In 1995, ACC had a contract with industry to provide aircraft maintenance to German F-4's and T-38's at Holloman, Whiteman and Beale AFB's. The German F-4's were at Holloman AFB, New Mexico in support of an international pilot training program where USAF instructors taught German pilots fighter doctrine and tactics. The T-38's were located at all three bases in support of the Companion Trainer Program (CTP) which gave special mission aircraft pilots additional flying time in T-38's due to the lack of aircraft in the F-117, B-2, and U-2 mission locations. Initially, Hollomon personnel performed program management of the entire contract as that was the main location for the contractors heavy maintenance operations. Flightline level maintenance was accomplished at all three locations; however, T-38 intermediate level maintenance and engine overhaul was performed at Holloman. The program began to run into performance, cost and contractor relationship

problems to the point that in 1996, the ACC Director of Logistics decided to turn the management of the program over to the ACC Program Management Squadron. Within 18 months, the program was under a new performance based contract that reduced program cost over two million dollars from the previous contract. In addition, increased performance and responsiveness was achieved at all three locations evidenced by the comments solicited by the Wing Commanders at the supported bases. In the following years, mission capable (MC) rates for the German F-4's were the highest of any ACC aircraft in the inventory and T-38 MC rates achieved the highest level for the T-38 fleet Air Force wide.

Another success story for the organization is the Counterdrug Surveillance and Control System (CSCS) Program, formerly the Caribbean Basin Radar Network (CBRN). The program consists of a network of ground based air surveillance sites in Columbia, Venezuela, and Peru supporting air interdiction of narcotics traffic in the source zone. Despite the complex nature of the surveillance and communications systems, and the complicated nature of the host-nation agreements, the unit has successfully managed the outsourced operations and maintenance of the program and its unique relationships for over ten years. The program has been re-competed twice in its short history and each time the contract cost has been reduced by at least ten percent. The 1997 reprocurement realized a two million-dollar decrease in contract cost from $19 million per year to $17 million annually. Annual contractor re-imbursements have been held constant with inflation and program cost avoidance and savings has been re-invested into prime mission equipment keeping operational availability rates exceeding customer expectations.

6.0 Applications.

6.1 Installation Level. The organizational model for complex business management, as depicted by the ACC Program Management Squadron, has potential application throughout the Services and the Department of Defense. At the installation level, a program management squadron can be the cornerstone to adequately managing and integrating outsourced functions into the installation's mission. With more functions being considered for outsourcing, such a unit can provide the capacity for larger, multi-function outsourcing opportunities that maximize the benefits of economy of scale. The unit provides single point control, integrated services, and a cradle to grave business management capability responsive to the installation commander. Moreover, rather than retain management and technicians in each of the functional squadrons or units that own the outsourced functions, a consolidated program management squadron can provide focused, integrated and responsive management at a much reduced manpower burden. In addition, the functional experts within the unit combined with appropriate business management training makes them the ideal entity to further train for OMB A-76 study execution and management of the entire competitive sourcing process.

6.2 Major Command and Service Level. In much the same manner that a program management organization at the installation level supports the installation's outsourcing initiatives, the same can be true for the Major Command (MAJCOM) and Service level. The ACC Program Management Squadron is testimony to its effectiveness. Many outsourcing initiatives will involve multiple installations driving the management of programs to the Major Command level. In addition to programs that cut across installations, single function outsourcing that combines requirements from many locations is also best managed at the MAJCOM level to maintain consistency of service quality and maximize economy of scale.

The MAJCOM level organization also becomes the center of excellence for outsourcing and the focal point for policy and guidance to the installation level units. The same can hold true for a Service level organization that can not only manage service–wide outsourced programs and functions but fight the politics involved in making sound outsourcing policy through the executive and legislative branches of government. A DoD standard for management of competitively sourced activities could be developed and employed. Creating an outsourcing compatible organizational structure from the installation to the Service level acknowledges the leadership decision to seriously employ competitive sourcing and makes the necessary investment in human capital to make it effective.

7.0 Conclusion.

Leadership within the Department of Defense still maintains that outsourcing must become an integral part of reducing defense costs and bolstering defense modernization. This study examined why organizations both public and private use outsourcing to become more effective, efficient and focused on core responsibilities. However, incorporating outsourcing in an organization's method of operation is no easy task. Cultural, process, execution and training barriers are resident in every organization to include DoD. These barriers, which become roadblocks to effective outsourcing, must be understood and mitigated before the benefits of outsourcing can be realized. Moreover, organizations must recognize that managing outsourced functions and programs requires a complex business management capability that combines functional expertise with business knowledge in an integrated organizational structure. That integrated structure must operate in a cultural environment that emphasizes cradle to grave, total program management executed in a business atmosphere. For the Department of Defense, a model of such an integrated organization exists within the

Air Force's Air Combat Command. The complex business management capability reflected through ACC's Program Management Squadron is testimony to a way ahead for effective Service and DoD outsourcing programs. Leadership support, investment in human capital through education and training, and creation of an integrated management organizational structure for outsourcing mitigates the common organizational barriers to effective outsourcing execution. Leadership commitment to effective outsourcing and creation of a complex business management capability will lead DoD to reduced defense costs, savings for modernization and better focused defense operations.

ENDNOTES

[i] Dale D. Buss, "Growing More by Doing Less," Nation's Business , December 1995, 18.

[ii] Anonymous, "The Outing of Outsourcing," The Economist , November 25, 1995, 57.

[iii] Dale D. Buss, "Growing More by Doing Less," Nation's Business , December 1995,20.

[iv] Richard Siemers, "Meeting the New Outsourcing," ABA Banking Journal , June 1995, 52.

[v] Dale D. Buss, "Growing More by Doing Less," Nation's Business , December 1995, 24.

[vi] Leslie Wines, "Making Hay," Journal of Business Strategy , July/August 1995, 31.

[vii] Ibid

[viii] Anonymous, "Boeing to Increase Supplier's Workshare," Aviation Week & Space Technology , July 24, 1995, 33.

[ix] Ibid

REFERENCES

Anonymous, "The Outing of Outsourcing," The Economist, 25 November 1995.

Anonymous, "Boeing to Increase Supplier's Workshare," Aviation Week and Space Technology, 24 July 1994.

Buss, Dale D. "Growing More by Doing Less," Nation's Business, December 1995.

Christensen, Clayton. "What is an Organization's Culture?" Harvard Business School, May 1999.

Congress of the United States, Congressional Budget Office. Public and Private Roles in Maintaining Military Equipment at the Depot Level. July 1995.

Garrett, Gregory A. World-Class Contracting, Arlington, Virginia: ESI International Publisher, 1997.

Schein, Edgar. Organizational Culture and Leadership, San Francisco: Jossey-Bass Publishers, 1988.

Siemers, Richard. "Meeting the New Outsourcing," ABA Banking Journal, June 1995.

United States Senate. STATEMENT of F. WHITTEN PETERS, SECRETARY of the AIR FORCE to SENATE ARMED SERVICES COMMITTEE, SUBCOMMITTEE on READINESS and MANAGEMENT SUPPORT. 3 March 2000. Online. Senate.gov. 10 November 2000.

Wines, Leslie. "Making Hay," Journal of Business Strategy, July/August 1995.