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Industry Study

Final Report
Private Sector Support to Operations



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PRIVATE SECTOR SUPPORT TO OPERATIONS 2010

ABSTRACT: The private sector support to operations (PSSO) industry provides base operations, logistics services, training, and intelligence support to the United States government for presidentially declared contingency operations. The market is composed of a few large and many smaller firms supplying services to a single customer. PSSO is an economically healthy industry capable of supporting national security requirements; therefore, no additional regulatory policies are needed. Although relying on contractor support has many benefits, it also creates strategic risks. Additionally, to gain maximum effectiveness from contractor support, the government needs to improve its acquisition policies and practices.

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- DynCorp International, LLC
- Readiness Management Support, LLC
- URS Group, Inc & Louis Berger Group Inc
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Key Assessments:

1. The private sector support to operations (PSSO) market consists of an oligopolistic supply base and a sole consumer—the U.S. Government (USG). The market is balanced; neither the suppliers nor the consumer have an advantage over the other.
2. The PSSO industry is economically healthy, able to support US national security requirements, and capable of providing required support to contingency operations.
3. There is no evidence indicating the growth of contractor support to USG contingency operations will reverse in the near to mid-term.
4. Reliance on contractors by major national security departments and agencies does not have a detrimental effect on their ability to accomplish contingency missions.
5. Firms will be able to fill USG requirements for contingency support (excluding unconventional threat environments) without government policy intervention; and, negative consequences of intervention could outweigh benefits which might be gained.
6. While providing many benefits, reliance on the private sector is accompanied by inherent risks, such as creating secondary effects that could undermine the strategic objectives, lessening deterrence credibility, and creating additional vulnerabilities.
7. The USG does not utilize PSSO contractors as effectively as possible. Shortfalls include:
 - a. Lack of clear limits on the roles and responsibilities contractors can execute on behalf of the government.
 - b. Federal Acquisition Regulations do not provide adequate guidance to cover contingency operations.
 - c. The USG lacks sufficient experienced contracting personnel.
 - d. Unclear legal status of contractors undermines accountability.
8. Emerging mission areas such as cyber security operations are potential growth opportunities for PSSO contractors.

Key Recommendations:

1. Improve congruency between national security objectives and the use of PSSO contractors.
2. Define the boundaries of contractor support.
3. Strengthen regulatory guidance.
4. Enhance the effectiveness of the USG acquisition work force.
5. Remove jurisdictional ambiguity and improve PSSO contractor accountability.
6. Foster effective PSSO growth in additional national security areas such as cyber security.

Many Americans believe the federal government is much larger today than it was in the mid-20th century. If measured by the number of civilian workers, however, in 2006 it was about the same size as it was in 1963, with approximately 1.9 million civilian employees. Nevertheless, the federal budget expanded by huge amounts. Adjusted for inflation, it grew from \$733.3 billion to \$2.7 trillion.¹ This meant that, on average, each federal civilian employee went from being responsible for \$386,000 to \$1,421,000.² As the federal budget expanded, so too did the number of contractors providing services and expertise, so that in 2007 there were 7.5 million contractors supporting the federal government.³ In light of this, the large increase in the number of contractors supporting national security missions is not surprising. A correspondingly large increase in the number of contractors supporting contingency operations is part of the same trend.

While the Department of Defense's (DoD) extensive use of contractors is the subject of much public scrutiny, greater dependency on the private sector is also evident in other government agencies such as the Department of State (DoS), the U. S. Agency for International Development (USAID) and the newly formed Department of Homeland Security (DHS). For example, since 2000, service contracts for support to DoD, DoS and USAID increased by 25 percent, 16 percent and 4 percent, respectively;⁴ and, the number of firms entering this service market doubled.⁵ The growth in the scope and volume of support provided by contractors, especially in the national security arena, make this industry a major component of the defense industrial base.

This paper will first define the *private sector support to operations* (PSSO) industry. It will then demonstrate the industry is economically healthy and able to support national security requirements. While the demand for services will decline with the drawdown of operations in Iraq and eventual reductions in Afghanistan, the United States government's (USG) reliance on the private sector to support contingency operations will continue throughout the long-term. The paper will show the industry is well-suited to provide the requisite labor force for future contingency operations and is able to adapt to fluctuations in USG demand because of its diversified and global nature.

Next, the paper will examine strategic-level risks incurred by reliance on contractor support for contingency operations. This reliance has the potential to create secondary effects that can undermine the government's strategic objectives. It also could potentially weaken US deterrence by creating uncertainty about the government's ability to operate in unconventional threat environments. Additionally, the reliance on contractor support creates new vulnerabilities to cyber and asymmetric physical attacks that require mitigation.

Third, the paper will show there are significant challenges to the effective use of PSSO contractors. The most pressing issue is the need to better define the limits of contractors' authorities and responsibilities. Also, the Federal Acquisition Regulation (FAR) does not provide adequate guidance to cover contingency operations. In addition, the USG lacks enough experienced contracting officers and acquisition personnel. Moreover, the legal status of contractors in a contingency operation outside the United States remains unclear.

Before concluding, observations of how some allied countries meet their contingency operations support requirements are examined. Then, three short essays will explore substantial issues in greater detail. Finally, this paper will make specific recommendations to help the USG improve the effectiveness of its use of private sector support in contingency operations.

THE INDUSTRY DEFINED

For this paper, the PSSO industry is: contracted base operations, logistics services, training or intelligence support for USG operations in presidentially declared contingencies. In the PSSO market, suppliers are competitive and offered substitutable products (services) at substantially the same price. This market is distinct from support provided to routine operations because of the dynamic nature of the contingency environment. That difference creates unique requirements, and while some firms are in both markets, others chose to compete in only one. This market included services provided by private security companies such as Xe (formerly Blackwater USA), Triple Canopy, and Executive Outcomes. However, discussion of those services is excluded from the main body of this paper because, even though they account for only about five percent of the contracted support, they are the focus of many controversies and detract from discussion of broader issues.⁶ Later in this paper Col Dan Orcutt's essay addresses significant issues raised by the outsourcing of lethal force.

One of the challenges to formulating government policy for this industry is the difficulty defining exactly what is included in the industry. Many of the firms in this industry have diverse business areas and earn only a small percentage of their total revenues from government work. For example, Fluor Corporation is one of the three companies that won the right to compete for task orders under the Logistics Civil Augmentation Program (LOGCAP) IV contract—which supports the majority of logistic operations in Afghanistan and Iraq. According to its 2009 annual report, Fluor earned \$22.3 billion in revenues, but only approximately three percent of its business was with the USG. Additionally, some firms conduct a large percentage of their business with the federal government, but much of it is outside the PSSO industry. Lockheed Martin illustrates this. According to its 2009 annual report, it had \$45.2 billion in sales, of which 85 percent was to the federal government. It was difficult to determine how much of that revenue was generated by supporting contingency operations. For example, \$3.27 billion in sales was from intelligence operations; and, as will be shown later, determining which parts of intelligence operations supported contingency operations and which supported recurring operations provided no added value. Nonetheless, there is a PSSO industry and a corresponding market; however, defining the precise edges of the market is unnecessary and likely not possible. Given there is a market, determining its economic health is important to help evaluate its ability to support US national security requirements.

Market Structure and Industry Conditions

Analyzing the structure, conduct and performance (SCP) of a market is a common framework used to assist decision makers and “is a descriptive way of organizing information about a market or industry and a paradigm about how one works.”⁷ The following SCP analysis of the PSSO industry determines that it is economically healthy.

Structure

The PSSO market consists of an oligopolistic supplier base and a single consumer. In the supply base there are a few large firms that make up a large percentage of the market, with many smaller companies vying to gain market share. While oligopolies can reduce value in the market by colluding and inflating prices, this is not apparent in the PSSO market. The increasing

number of firms entering the market and competition for market share ensure the large firms face sufficient competition in price and quality that innovation and improved efficiency are required to win contracts and task orders.

The USG is the sole consumer in this market, which results in monopsony-like power. Although some analysts argue the agencies within the USG are separate entities because they often operate independently and without a coordinated strategy, by definition the USG is the sole consumer. Also, while some firms in the PSSO market provide similar services in other markets, the PSSO market is discrete from those because of the unique requirements and scope of efforts required by the USG. Therefore, there is only a single consumer in the PSSO market.

Michael Porter's *The Five Competitive Forces That Shape Strategy* was used to determine the impact of this structure on behaviors in this market. It provides a guide for determining a firm's strategy to ensure its profitability and strategic positioning over time.⁸ Of these forces, the bargaining power of the buyer is the most significant influence on market behavior.⁹ Within the PSSO market, the USG determines demand based on its requirements, and the suppliers respond. Since the USG is the sole buyer, it has power over the suppliers, which results in lower costs and higher quality. There are, however, additional considerations that moderate both the suppliers' and consumer's behavior. For example, because contingency operations often require quick reaction, and USG operations are reliant on contractor services, the USG does not have unlimited power over its suppliers. Another of Porter's market characteristics that shapes firms' strategy comes from the threat of new entrants.¹⁰ Since the major cost for entry into the PSSO industry is human capital (versus physical capital), new firms are able to enter the market with minimal start-up costs. This prevents the few large firms from gaining an unreasonable advantage and exploiting the inelastic demand for their services. As the new entrants work to gain market share by providing better prices and services, firms already in the market respond in kind, thus sustaining a healthy PSSO market.

In summary, the market structure is well balanced and neither suppliers nor the consumer have an unreasonable advantage over the other. The USG generally receives the services it requires, at the needed level of quality, at a price it is willing to pay. In addition, sufficient competition and threat of new entrants motivate firms to innovate, find efficiencies in their operations and hold down prices.

Conduct

In addition to market structure, evaluating the firms' conduct is necessary to appreciate how, where, and when they compete.¹¹ Many publicly-traded and privately-owned firms operate in the PSSO market. Review of five representative, publicly-held firms in the market (KBR, DynCorp, Fluor, L-3 Com, and URS) shows firms compete across the entire market following low-risk, traditional marketplace rules.¹² Firms within the PSSO industry determine their comparative advantage, whether in reduced costs or by providing a differentiated service, allowing them to garner more business.¹³ In the future, as more firms enter the market, companies may expand their services to provide a niche commodity and obtain further comparative advantage. The large corporations also demonstrate a propensity to pursue growth via acquisition of other firms, both domestically and internationally.

With expectations that operations in Iraq will continue to drawdown and the eventual conclusion of Afghanistan operations, PSSO firms continue to diversify their services into commercial (including non-governmental organizations) and foreign markets. To compete in

these foreign markets, the firms seek out customers individually and with foreign-owned joint venture partners. Reaching out to these international markets could be a lucrative endeavor for PSSO firms as some foreign governments are even more dependent on private sector support than the USG. The success or failure of firms' conduct is measured by their financial performance and, for publicly traded firms, stock share price.

Performance

Evaluating firms' performance is the third stage of the SCP analysis. This involves assessing company financial data and comparing it to industry averages. However, determining industry averages is challenging because firms competing in the PSSO market often have a range of business areas that cross multiple industries from Aerospace/Defense to Engineering/Construction. The Engineering/Construction industry financial ratios are used for comparison because historically this has been the preponderance of work conducted in contingency operations. Additionally, an average across the five representative PSSO firms is provided for comparison. Below are the key financial ratios of the five firms:¹⁴

Ratio	KBR	DynCorp	Fluor	L-3 Com	URS	AVERAGE (5 firms)	AVE INDUSTRY (Eng/Con)
<i>Current ratio</i>	1.59	1.74	1.55	2.08	1.88	1.77	0.38
<i>Long term debt to equity</i>	0.00	93.09	0.54	62.62	17.66	34.78	6.15
<i>Return on Equity</i>	11.29	14.35	22.59	13.33	6.48	13.61	5.10
<i>Net Profit Margin</i>	2.30	2.02	2.85	5.46	2.64	3.05	2.34
<i>Price/Earnings to Growth</i>	0.94	0.72	1.49	1.14	1.59	1.18	1.19

Overall, firms within the PSSO industry are healthy and most have better financial ratios than the industry average. All five firms appear to have sufficient assets to meet current liabilities and serve their shareholders well with higher than industry returns on equity. Additionally, their profit margins, while appearing low, are consistent with the industry average. The firms' ability to react to a downturn in USG demand appear sufficient; however, two of the firms (DynCorp and L-3 Com) have a much higher debt-to-equity ratio than the average. This high debt to equity ratio may have been caused by the procurements of physical capital, as well as recent acquisitions. Finally, comparing the firms' price/earnings to growth indicates that, overall, these companies stocks are fairly priced.¹⁵

Based on an SCP analysis of the market, the PSSO industry is economically healthy. However, the outlook for the future of the industry is another key factor in determining the industry's ability to support the national security strategy into the future.

INDUSTRY OUTLOOK

Despite the current administration's determination to reduce the USG's reliance on contractor support, there is no evidence suggesting the growth in use of contractors will reverse

in the near to mid-term. The expanding role of contractors in modern government operations dates back to the Eisenhower Administration and its desire to keep government as small and efficient as possible.¹⁶ One way it kept government small was by outsourcing some operations; a political maneuver used by most administrations since then. During the George W. Bush administration, the rate of growth increased significantly. In 2000, the government spent about \$201 billion on contracts, and by 2008 had increased this amount to \$540 billion.¹⁷ For perspective, Lockheed Martin had about \$38.5 billion worth of government contracts in 2009. The Department of Justice's budget for 2009 was about \$38 billion,¹⁸ and the Department of Energy's 2011 budget request was \$28.4 billion.¹⁹ As author Allison Stanger said, "In this new world, the private sector increasingly handles the everyday business of governing."²⁰

As new needs arise, national security institutions use the agility of contractors to meet requirements quickly. A good example of this is information operations. *The Washington Post* reported, "Information operations is [sic] the hot thing, and somebody turned on a hose of money."²¹ Between 2006 and 2008 there were 172 contracts worth \$270 million for information operations in Iraq alone.²² Col Dwayne Lott's essay later in this paper will examine growth opportunities for the PSSO industry in information and cyber operations.

Given this trend in the federal government, it is not surprising that the departments involved in national security and contingency operations experienced growth in their use of contractors. For example, in Iraq and Afghanistan, there were roughly as many U.S. contractors as military troops. Similarly, in the Intelligence Community, more than half the individuals working at the National Counter Terrorism Center were contract employees.²³ Contract spending by the Intelligence Community increased from \$18 billion in 1998 to approximately \$60 billion in 2007.²⁴ It was reported that in 2007 at least 70 percent of the Intelligence Community's budget was spent on contracts.²⁵ It is impossible to determine what percent of intelligence support contracts specifically support contingency operations. The nature of many intelligence operations is such that the same systems and personnel could work on a contingency issue one day and a national strategic issue the next or, both simultaneously. The same situation exists at the State Department; it is often difficult to differentiate when a support function supported contingency or routine operations. The State Department's Office of Logistics Management considers its workforce properly blended and contractors are thoroughly integrated in all of its operations.²⁶

The firms in the market are able to fill USG requirements for contingency support (excluding unconventional threat environments, which will be discussed later) without additional government policy intervention. This is due in part to the sequencing of government and contractor resources. For the immediate surge leading into an operation, soldiers and USG employees comprise the preponderance of the force. While there are some contractors in the initial surge, those numbers are relatively small; and, sufficient quality and quantity of contractors are maintained by weapons system support contracts. As the operation matures, contracting firms build the sustainment contractor force over time. In addition, the world has become the supply chain for most contingency contractors. As of September 2009, host and third country nationals made up 91% of the contracted work force in Afghanistan.²⁷ Global recruiting of the relatively unskilled workers required by service contractors ensures a virtually unlimited supply of labor.

The reliance on contractors by the major national security departments and agencies does not have a detrimental effect on those organizations' ability to accomplish contingency missions. Senior government leaders and contracting officials, as well as numerous officials at large and

small companies, unanimously agree that the private sector has never failed to provide the required service at a price the USG was willing to pay. Additionally, none of the officials could think of a requirement, within the current operating environment, which the private sector would not be able to support.²⁸ Therefore, because government intervention in markets almost always has negative and positive impacts; the marginal benefits that could be gained by additional USG intervention are not worth the risk of disturbing a well performing market.

Pursuant to the Obama administration's intent to reduce the government's reliance on contractors, the Office of Management and Budget (OMB) recently released its *Acquisition and Contracting Improvements Plans and Pilots*. OMB called for federal agencies and departments to reduce contracts to save \$40 billion annually by fiscal year 2011. The DoD announced it will attempt to in-source 20,000 positions. However, given that there are approximately 7.5 million contractors supporting the USG, even if the OMB plan is fully implemented, the approximately 7.4 percent reduction in contracts seems unlikely to reverse the growth of contractor support. The recent expansion of government's fiscal program through economic stimulus and health care legislation appears to make contractor reductions even more unlikely. Historically, as the government's budget grows, so does the size of its contractor support force.

In summary, the PSSO industry and market are economically healthy and have a positive outlook. This industry is a stable part of the national security industrial base, and no government intervention in the market is needed to ensure the long-term health of the industry. However, a complete assessment of the industry's ability to meet national security needs should also consider non-economic factors.

Strategic Risks of Reliance on Contractors

Although the PSSO industry provides benefits to the USG in contingency operations, reliance on the private sector also imposes inherent strategic-level risks. As will be discussed, it creates secondary effects that could undermine strategic objectives, lessen deterrence credibility, threaten USG operations through vulnerabilities in private sector information technology systems, and increase uncertainty about corporate resiliency while under duress.

The USG's reliance on the private sector to provide logistics services in order to augment capabilities during contingency operations has secondary effects that can significantly influence the outcome of operations. Beyond providing benefits to the USG, the logistics market creates benefits for the host country. Benefits include employment for local workers that may otherwise be vulnerable to insurgent recruitment, development of local economic capacity, and fostering inter-group relationships. However, the use of contractors can also generate several negative externalities that can undermine the strategic goals of the contingency operation. These include intensifying ethnic or tribal tensions by empowering one group over another, facilitating illicit cargo trafficking, enabling third-party profiteering, and creating an artificially inflated supply of service providers. The third essay in this paper examines this issue in detail.

The strategic decision to depend on contractor support also raises doubt about US forces' ability to conduct sustained operations on a chemical, biological, radiological or nuclear (CBRN) battlefield, especially if support areas become contaminated. In general, the USG has not made operating in a CBRN environment a requirement in support contracts, and it would be inappropriate to do so. The high risk of large loss of life likely makes contracting these functions prohibitively expensive. Also, it would be a fundamental shift in the country's approach to national security to rely on private sector organizations to be able to counter existential threats to

the country or that could significantly alter the international balance of power. Doubt about the USG's ability to sustain operations on CBRN battlefields reduces the deterrent created by US national power and diminishes national security.

Another vulnerability created by reliance on PSSO contractors is their potential inability to operate while assaulted by a sophisticated cyber attack. Just as government agencies became increasingly reliant on maintaining computer connectivity, so did contractors. The federal government made large investments to harden its information systems from attack. However, many commercial firms did not invest the same level of effort to secure their systems. If PSSO contractors could not operate effectively, the federal government's actions could be impaired. Contractor information systems, therefore, may represent an Achilles heel to USG contingency operations, and the national security of the U. S. could be reduced.

A fourth concern is the resiliency of corporate structures and their will to remain in contracts and the market if corporate facilities in the United States come under physical attack or suffer other debilitating disasters. As adversaries look for asymmetric and nontraditional ways to undermine the effectiveness of government contingency operations, corporate facilities may present appealing, and even legitimate, targets. The federal government expended significant effort to harden its physical infrastructure, but most private companies did not. Until such attacks happen, it is impossible to predict accurately how companies' leadership and corporate boards will respond. However, it is reasonable to predict some companies would leave the industry, judging the risk is too great for the relatively low profit margins earned. Also, some corporations may not be prepared to continue to provide support to government operations following major disasters which impact their facilities. Specific recommendations to mitigate these risks are provided later in this paper. However, before addressing them, additional impediments to the effective use of contractors are discussed.

Challenges to Effective Utilization of Contractors

In addition to strategic risks, there are several operational issues preventing the USG from maximizing effectiveness of PSSO contractors. First, lack of clear guidance on the limits of the roles and responsibilities contractors can execute on behalf of the government creates uncertainty which increases friction in operations. Also, the Federal Acquisition Regulations (FAR) do not provide adequate guidance to cover contingency operations which results in sub-optimized contracting actions. In addition, a shortage of experienced contracting personnel prevents effective contract management. Finally, the legal status of contractors in contingency operations is often unclear, which hampers creating unity of effort.

Lack of Definition of Inherently Governmental Functions

Defining the limits on roles and responsibilities contractors can assume in a contingency environment is both a seemingly intractable problem and, at the same time, a foundational requirement. Without clear limits, confusion and the extra effort required for clarification can result in increased friction during operations which hampers effectiveness. Existing definitions of inherently governmental functions have proven inadequate to address the complexities of the United State's strategic environment. As a result, government agencies independently developed frameworks to reduce the ambiguity by creating lists of specific functions they considered inherently governmental. For example, Pete Geren, former Secretary of the Army, signed a

memorandum that provided an eight-page “Yes” or “No” checklist of specific functions. The FAR provided 17 examples of services that are inherently governmental, and DoD took more than 120 pages to describe them.²⁹

According to Daniel Gordon, the administrator of OMB's Office of Federal Procurement Policy, “government grew too reliant on the private sector and the line between services that should be kept in-house and those that could be contracted out blurred.”³⁰ According to Gordon, it appeared that the government had lost control of its operations, especially during the Bush Administration, which greatly expanded outsourcing. This blurring, according to the Commission on Wartime Contracting, significantly increased the risk of contractors performing inherently governmental functions in contract management.³¹ The management of the LOGCAP contract discussed later in this paper clearly illustrates this blurring of responsibilities. In operations, it is inevitable contractors would perform inherently governmental functions that directly or indirectly affect U.S. foreign policy or influence government decisions.

However, it is important the government recognize the contributions contractors make to the success of contingency operations and the need to integrate their capabilities while planning. Definitions of inherently governmental need to be flexible enough to allow USG agencies to continue to capitalize on expertise and capabilities critical for successful operations, no matter which sector of the economy they reside in. Further, the USG should recognize and accept private industry as a permanent and integral part of its operations force and institutionalize their role in operational planning. For example, DoD and DoS should include industry capabilities and limitations in development of force planning documents such as the Quadrennial Defense Review (QDR) and the Quadrennial Diplomacy and Development Review (QDDR).

Inadequate Guidance From the Federal Acquisition Regulation

Another significant issue is that the FAR, which governs the federal acquisition processes, does not provide adequate guidance to address contingency operations. The federal courts said the FAR had “the force and effect of law,” and nearly all government agencies were required to comply with it.³² The purpose of the FAR is to provide “uniform policies and procedures for acquisition” in order to have an acquisition system that (1) satisfies customer's needs in terms of cost, quality, and timeliness; (2) minimizes administrative operating costs; (3) conducts business with integrity, fairness, and openness; and (4) fulfills other public policy objectives.³³ However, the FAR provides very limited guidance on services contracting which makes it difficult for acquisition professionals to accomplish those objectives when acquiring services in the PSSO market.

Although written specifically about DoD, a 2009 Government Accountability Office (GAO) report could have been written about the entire federal government. It said:

DoD continues to face challenges in employing sound practices when contracting for and managing service contracts. The department has obtained services based on poorly defined requirements, used inappropriate business arrangements and types of contracts, and failed to adequately oversee and manage contract performance.³⁴

Unless the FAR is modified to provide additional guidance on acquiring services and contracting in contingency environments, it will be difficult for acquisition teams to gain maximum effectiveness from service contracts in contingency operations.

Lack of Experienced Contracting Personnel

To properly acquire goods and services in accordance with the FAR, the USG needs fully trained personnel to provide contract management, conduct audits, provide quality assurance and close out contracts. Using DoD as an example to highlight an issue pervasive across the federal government, DoD spending on goods and services more than doubled from 2001 to 2008, but the number of personnel in its acquisition workforce dropped by 2.6 percent.³⁵ In another DoD example, the Defense Contract Management Agency (DCMA) has responsibility under FAR part 42 to execute contract management on behalf of the DoD. However, DCMA took severe budget cuts since its zenith in the late 1990's when it had over 20,000 employees. By the spring of 2010 the organization had less than 10,000 employees, but still needed to meet FAR and customer requirements. The organization's often criticized management of LOGCAP contracts demonstrates its lack of sufficient resources. GAO, DoD, and the Wartime Contracting Commission concluded that DCMA did not have the people nor the requisite skills in theater to manage this multi-billion dollar contract. The 2009 Quadrennial Defense Review also highlighted the issue, stating "There is an urgent need for technically trained personnel—cost estimators, systems engineers and acquisition managers—to conduct effective oversight."³⁶

Federal agencies filled the shortfall in contract management personnel with additional contractors. For example, in February, 2007, the Army awarded the LOGCAP support contract to Serco – North America (referred to as Serco) to "obtain support services such as planning, requirements generation, cost estimating, logistics management, and management analysis in support of the LOGCAP program and contracting offices."³⁷ Although Serco provides services that are not clearly inherently governmental, the LOGCAP program office is dependent on Serco's technical and functional expertise. While technically legal, this type of outsourcing places a PSSO contractor in a role that so strongly influences government decision making that they are in fact making government decisions.

Unclear Legal Status of Contractors

The final major challenge to effective utilization of contractors is their uncertain legal status when they are supporting contingency operations outside the United States. This can impede senior leaders' ability to ensure contractor actions do not undermine strategic goals of operations and impede military unit commanders' ability to maintain good order and discipline in their units. Congress recently modified both the Military Extraterritorial Jurisdiction Act (MEJA) and the Uniform Code of Military Justice (UCMJ) to broaden jurisdictional scope for civilian crimes overseas, but they remain insufficient for prosecution of civilian personnel supporting U.S. operations.

The MEJA is insufficient because without an overseas investigative body, prosecutions become time and resource intensive often failing to meet the immediate needs of military commanders. In an attempt to address these MEJA shortcomings, in October 2006 Congress extended the jurisdictional reach of the UCMJ to include civilians participating in contingency operations.³⁸ Unfortunately, it did not clearly establish which articles were applicable to civilian

personnel. As such, the greatest concern associated with exercising UCMJ jurisdiction over civilians is that the Supreme Court has not ruled on the constitutionality of applying the new law to civilians. Indeed, history suggests the court will determine such use unconstitutional.³⁹ Also, although the law establishes jurisdiction of civilians employed by DoD, it does not account for civilians employed by other federal government departments. They are under the jurisdiction of the host nation, unless there are other governing authorities such as the Coalition Provisional Authority directive established in the early portions of Operation Iraqi Freedom. Companion bills, H.R. 4567 and S 2979 *Civilian Extraterritorial Jurisdiction Act (CEJA)*, were introduced in February 2010 that purport to extend U.S. federal jurisdiction to this group. Under CEJA, civilian personnel employed to support the USG would not only be held accountable for crimes committed overseas but also the U.S. justice system would be viewed as more credible within the international community.⁴⁰ However, until these bills become law a jurisdictional gap remains.

As with strategic risks, specific recommendations are provided to improve acquisition policy and practices. Before discussing recommendations, the processes used by some allied countries to meet their support requirements in contingency operations are examined. In addition, three essays examine the dangers of outsourcing lethal force, the second order effects created by contracting support in contingency operations, and cyber operations as a potential growth area in the PSSO market.

International Observations

While the USG has by far the largest and most expansive contracted support for contingency operations, other allied countries also utilize contracted support. The Canadian Forces, for example, use the private sector for the same reasons as US forces—they reduced the size of their force and outsourced many functions determined not to be core military functions. Not surprisingly, the Canadians face many of the same challenges as the USG. The Canadian experience validates the USG's model because the Canadians independently developed a similar methodology to meet similar requirements.

Europeans also utilize contracted support. The British firm Aegis is an excellent example of a firm which provides services in both the PSSO market and to private sector customers. This diversification helps mitigate the effects of volatility in the PSSO market. It appears to be a healthy business model, and serving customers in both the government and private sector improves the support provided to both. Additionally, this positions Aegis to capitalize on emerging markets. The German forces contracting model is very different. It is a complete partnership between industry and the government. There are no concerns about unity of effort or the blurring of inherently governmental responsibilities because they make no distinction between contractor and government personnel. While very effective, it would be politically unacceptable to attempt to replicate that system to support USG operations.

Coalition contracting for contingency support is very challenging. NATO's Maintenance and Supply Agency (NAMSA) uses the private sector to provide logistics support to its member states. The NAMSA processes are flexible, but the organization also faces challenges to determining the optimum contract types to gain the best value for its governments. Additionally, much of the flexibility is gained by a system which has less accountability and oversight than the USG's system. While this is effective for the types of operations supported by NAMSA, it most likely would not be politically acceptable for large-scale implementation by the USG. However,

NAMSA could be a useful option for supporting USG operations when conducted as part of a NATO mission.

The international firms confirm the global nature of suppliers in this market and their ability to quickly recruit and field an almost limitless supply of manpower. However, they also confirm there is international competition for some resources, particularly in theaters of operations. Early and frequent coordination with allies regarding objectives for contracting services could help optimize the strategic effect created by utilizing contracted support.

ESSAYS ON MAJOR ISSUES

Essay #1—Dangers of Outsourcing Lethal Force

The number of contractors in Iraq and Afghanistan exceed U.S. troop levels, and of the 193,674 contractors supporting those operations, 18,379 of them were armed--the equivalent of four and a half Brigade Combat Teams.⁴¹ The private sector's comparative advantage over the DoD is its ability to rapidly increase or decrease a level of support combined with subject matter expertise.⁴² Unfortunately, a lack of contractor transparency and inadequate governmental oversight costs taxpayers millions of dollars, hinders military strategy, and complicates foreign policy. However, current force levels and sustained contingency operations require their use at unprecedented levels. Therefore, Congress and the DoD should improve contractor transparency via control mechanisms and oversight, beginning with restricting what missions contractors can perform in contingency operations. This essay provides background information on the use of contractors in contingency operations, the dangers of outsourcing lethal force, the costs of outsourcing, and control mechanisms recently enacted by Congress. The four dangers of outsourcing lethal force covered are the loss of control of violence, the loss of transparency, the degradation in political control of the use of force, and the loss of legal accountability. The three outsourcing costs discussed are financial, the loss of unity of effort, and the negative impact on counterinsurgency efforts.

Background. There is historical precedent for nation states to utilize contractors to achieve political objectives. Civilians have been on the battlefield for centuries, and the precedent in the United States dates to our Constitution.⁴³ However, historians agree that contractor levels in Iraq and Afghanistan exceed levels not seen since the 17th century.⁴⁴ For perspective, the troop to contractor ratio in Operation Desert Storm was approximately 100 to 1; in the opening days of Operation Iraqi Freedom it shrank to 10 to 1.⁴⁵ The General Accounting Office (GAO) reported in June 2003, "...without certain contractor support, some missions of the U.S. Army would be at risk."⁴⁶ Further review of current contractor numbers reveals that the majority are not U.S. citizens. As of June 2009, of the 13,232 armed security contractors in Iraq, only 4 percent were Americans.⁴⁷ The numbers are similar in Afghanistan.

The final relevant background information is a definition of terms. A literature review revealed nine different terms for contractor support to the military, but this essay will use only two: contractors and Private Security Companies (PSCs). The term *contractors* refers to all private contracted support to military operations while *PSCs* specifically means armed contractors. The FY2008 National Defense Authorization Act (NDAA) defines private security functions as, "the guarding of personnel, facilities, or properties, and any other activity for which contractors are required to be armed."⁴⁸

Definitions are significant because of legal implications and contractual obligations. Nearly all authors on this subject agreed that corporations supporting military operations are not mercenaries as recognized by the United Nations and international law.⁴⁹ Legal issues go hand-in-hand with contracting. With financial costs reported in the billions of dollars, accurately measuring the overall cost of contractor use is difficult. Even determining how many contractors have been killed or wounded is cumbersome, but a 2007 tally estimated 917 killed and 12,000 wounded in Iraq.⁵⁰ Dollar costs, lost lives and legal concerns represent some of the dangers of outsourcing in general. However, a nation that outsources lethal force faces far graver dangers.

The Danger of Outsourcing Lethal Force. There are four major reasons governments should not outsource the use of lethal force. First, authorizing organizations other than the military to use lethal force undermines the state's monopoly on the control of violence. In his book, *The Utility of Force*, retired British General Rupert Smith distilled the two immediate effects of employing military force as, "killing people and destroying things."⁵¹ In the United States, the civilian-controlled military's legitimacy to kill and destroy comes with appropriately high levels of accountability and transparency. However, when military levels of violence are outsourced, there are corresponding losses in accountability and transparency. This shifts the most violent form of public policy execution from legitimate branches of government to the private sector that is in business to make a profit. This danger was apparent to our founding fathers and, as will be covered later, to President Eisenhower.

The civilian monopoly on control of military grade violence is at the heart of democracy, and our founding fathers toiled to get it right. The Federalist Papers cited their concern about the role of private interests in governance becoming unresponsive to the general interests of its citizens.⁵² In 2006, Blackwater (now Xe) Vice Chairman J. Cofer Black was reported to have claimed at a conference in Jordan that his firm could, "have a small, nimble, brigade-size force ready to move into a troubled region on short notice."⁵³ Considering the amount of special operations forces employed by the company, their military grade equipment (armed helicopters and armored vehicles), and aggressive force protection of State Department principles in Iraq, the statement signifies the extent of today's outsourcing. Author Eugene Smith summarized the lessons learned from nation states that made use of armed mercenaries over the past three centuries. One hopes these historical lessons do not have to be re-learned:

Although the use of mercenaries and other privatized means of violence proved successful, the price for that success was a continuous state struggle to regulate their behavior and performance. This conflict ultimately was about the authority and legitimacy of the state versus the very real power of these privatized means to wage war on anyone they chose.⁵⁴

The second danger of outsourcing lethal force is loss of transparency. Private security companies have operated with near complete immunity from transparency. Until recently, the DoD could not accurately identify how many contractors were serving in Iraq or Afghanistan nor what PSCs were being paid. In addition, PSCs are not subject to Freedom of Information Act (FOIA) requests, and their employees are not provided the whistleblower protection available to government workers.⁵⁵ Although Congress took steps to increase transparency, it was only the first step—forcing all departments of the federal government to be able to provide accurate information on contractor numbers, costs, and performance. The next step is to utilize increased transparency to provide better oversight.

Third, the use of armed contractors in the battle space leads to degradation in political control of the use of force. The impact can occur on the battlefield and in the halls of Congress. In Iraq, Blackwater security details focused on protecting principle dignitaries at all costs. One of the unintended consequences of their single-minded focus was an extremely negative perception of Americans in Iraq. This animosity contributed to the insurgent atrocity of hanging four Blackwater employees from a bridge in Fallujah in March 2004.⁵⁶ Numerous Blackwater employees were very professional former special operations forces who demonstrated heroism daily such as medevacing wounded Marines under hostile fire when U.S. medevac helicopters were not available.⁵⁷ However, the result of the insurgent atrocities in Fallujah was a presidential-level change in the direction of the war; President Bush ordered U.S. Marines to retake the city when before the incident they were orientated in a different direction. President Eisenhower voiced concern over another type of the degradation in political control of the use of force. Warning of the defense industrial base's influence in the halls of Congress, in his farewell remarks on January 17, 1961 he said, "we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex..."⁵⁸ His warning appears all the more poignant because any PSC can legally use its profits to lobby Congress.⁵⁹ And, the political power to control PSCs resides primarily with the Congress.

Congressional power stems from not only Article 1 of the Constitution, but also from the Arms Export Control Act under Title 22 of United States Code (USC). In essence, it requires firms engaged in training foreign militaries or providing services to foreign militaries to register and pay a fee, and oversight is done by the State Department Office of Defense Trade Control.⁶⁰ Ultimately, Congress has the power of the purse and has used it starting with the FY2007 NDAA. Congress should continue to strengthen oversight of DoD's use of PSCs, and federal agencies should ensure enforcement of recent legislation.

Finally, until recently armed contractors in Iraq and Afghanistan operated in legal limbo. This caused a significant loss of accountability for illegal activities. The Geneva Convention categorizes contractors deployed with the force as noncombatants, but this term appears disingenuous when applied to heavily armed PSCs.⁶¹ In an effort to control deployed contractor actions, Congress took legislative action in 2000 by passing the Military Extraterritorial Jurisdiction Act (MEJA) which applied to all civilians employed as DoD contractors. It permitted the Department of Justice to prosecute DoD contractors in U.S. Federal Court for any crimes committed abroad that would have violated US law.⁶² Although well-intentioned, legal loopholes rendered MEJA unused and ineffective. This became painfully apparent during the 2004 Abu Ghraib scandal when attorneys could not prosecute Department of the Interior interrogation contractors implicated by evidence collected.⁶³ Contractors in Iraq were in the murkiest legal situation imaginable when in 2004, Coalition Provisional Authority Order #17 exempted civilian agencies assigned to or supporting the Multi National Force from Iraqi law.⁶⁴ Previously, legal precedent held that because Congress had not declared war, contractors could not be prosecuted under the Uniformed Code of Military Justice (UCMJ). However, in FY2007, Congress provided clear guidance by placing PSCs under the UCMJ when they added the few key words, "during contingency operations or times of war."⁶⁵

The Costs of Outsourcing. The total financial cost of using just over 193,000 contractors remains uncalculated. However, this does not prevent debate on the subject.⁶⁶ Monetary costs were high due to the magnitude of non-competed contracts awarded and what was an accepted practice of cost-plus contracts. This occurred for two primary reasons. First, the USG has become overly reliant upon contractors. A September 2009 Congressional

Research Service report stated, “According to Governmental officials, the DoD and the Department of State would be unable to execute their missions in Iraq and Afghanistan without the support of private security contractors.”⁶⁷ The second reason financial costs are driven up is because free-market logic now affects the state’s production of security which leads to two parties having conflicting interests. The state wants security at the lowest price (or best value), and contractors pursue a bottom-line profit. This frequently degrades into problems such as over-billing or providing less service. Although author Peter Singer’s 2004 data is now 6 years dated, 40% of DoD contracts were non-competed, and in the five years prior to 2004, more than \$300B in non-competed contracts were awarded to contractor work.⁶⁸ In addition, Halliburton and CACI contracts were extended even while under governmental investigation.⁶⁹ Neither unique nor insurmountable, these problems are exacerbated by insufficient oversight.

DoD does not have a comprehensive contractor management plan or oversight agency other than the Inspector General (IG). A May 2008 DoD IG report revealed that of the \$8.2B in DoD spending that was inspected, the Pentagon failed to adequately account for \$7.8B paid to contractors in Iraq—a staggering 95% failure rate.⁷⁰ Moreover, \$1.4B (17% of that inspected) did not meet minimal requirements. The report stated, “Tens of millions of dollars were paid to various private sector contractors without any record of the goods or services provided.”⁷¹

Another financial cost that concerns senior military leaders is the loss of highly trained special operations forces who can earn several times more working for private security firms. For example, former U.S. Army Green Berets earned as much as \$30,000 per month in Iraq performing personnel security missions.⁷² Beyond the billions in contracts and the drain on experienced special operators, the sheer volume of contractors in the battle space causes a loss of unity of effort, especially in counterinsurgency operations.

The military principle of unity of command is pivotal for several reasons, primarily because it enables a unity of effort. Command in combat is challenging even with the ability to issue direct orders. Coordinating in combat is more difficult, but channeling the efforts of numerous disparate organizations is nearly impossible without the proper authority to control or direct operations. Imagine how tough it is to achieve unity of effort when commanders, through no fault of their own, are unaware of contractors operating on the battlefield.⁷³ Even with awareness, commanders were untrained in how to integrate contractor capabilities and activities. This leads to what Ulrich Petersohn referred to as a loss of functional control on the battlefield.⁷⁴ As a result, the DoD established several Reconstruction Operations Centers (ROCs) in Iraq to coordinate contractor efforts regionally. Ironically, the DoD did so by awarding a contract to the British-based Aegis Corporation.⁷⁵ To highlight coordination difficulties, Blackwater refused to coordinate with the ROCs.⁷⁶ This can rapidly lead to fratricide or result in military operations having to shift objectives as a result of contractor activity. Examples range from rescuing kidnapped contractors to retaliating for insurgent murders of contractors such as occurred in March 2004 in Fallujah.⁷⁷ Contractor behavior is scrutinized by local nationals just as closely as the military’s conduct. Missteps are capitalized on by the insurgent’s information operation and magnified by widespread media coverage. The resulting cost has an asymmetric negative impact to counterinsurgency efforts.

A pronounced lack of oversight and legal control can lead to contractor misbehavior in the area of operations. The U.S. Army field manual on counterinsurgency recognizes the impact of abuse and states, “Abuses by security forces can be a major escalating factor in insurgencies.”⁷⁸ Anti-American sentiment stems just as easily from abuses by American contractors or their employees as it does from uniformed personnel.⁷⁹ An Iraqi Interior Minister

summarized this well by saying, “Iraqis do not know them as Blackwater or other PSCs, but only as Americans.”⁸⁰ These costs to counterinsurgency efforts can be reduced with oversight and improved legal control.

Control Mechanisms. Increasing transparency of contractor support to the DoD has not been easy as major contracting companies have a powerful voice in Congress. Former President Eisenhower’s concern about the growing influence of the defense industrial base was prescient.⁸¹ But Congress has acted by utilizing the past three NDAs to narrow the missions contractors can perform, increase transparency, and provide expanded legal obligations. At the strategic level, the US Government should clearly define which missions the DoD can outsource. Foreshadowing came from the U.S. Naval Academy’s 9th Annual McCain Conference on Ethics and Military Leadership that concluded, “Contractors should not be deployed as security guards, sentries, or even prison guards within combat areas.”⁸²

It appeared Congress was listening when in the FY2009 NDAA, Congress, “included a ‘Sense of the Congress’ provision that PSCs should not perform inherently governmental functions such as security protection of resources in high-threat operational environments.”⁸³ After defining what missions PSCs should perform, the next step was to improve control and oversight methods. Congress took that step with the FY2008 NDAA which incorporated positive control mechanisms. These laws should now be enforced and increased. According to Schwartz, via the FY2008 NDAA:

Congress required the Secretary of Defense in coordination with Secretary of State to prescribe regulations and guidance relating to screening, equipping, and managing private security personnel in areas of combat operations. These regulations were to include tracking private security contractor (PSC) employees, authorizing and accounting for weapons used by PSCs, and reporting requirements whenever a security contractor discharges a weapon, kills or injures another person, or is killed or injured.⁸⁴

The DoD took action in July 2009 when it issued an instruction titled “Private Security Contractors (PSCs) Operating in Contingency Operations,” which established policies and procedures for managing PSCs.⁸⁵ Following suit, Joint Forces Command has a commander’s handbook in development which will include doctrine and guidance for operations.⁸⁶

Conclusion. Although increased contractor involvement in relatively low threat operating environments is a reality, Congress should maintain an aggressive oversight posture to prevent the costs of using contractors from exceeding the benefits. In addition, all federal agencies, especially the DoD, need to formalize and adhere to the control measures recently established by Congress.

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Essay #2-- Secondary Effects of Logistics Contracting in Contingency Operations

The U.S. military’s reliance on the private sector to provide logistics services in contingency operations has secondary effects in theater that can significantly influence the outcome of operations. In Iraq and Afghanistan, the U.S. military uses contractors to supplement its combat support services – materiel transportation and base support – to free military personnel and vehicles to perform core combat functions and reduce costs.⁸⁷ Beyond providing

this primary value to the military consumer, employing Host Nation (HN) logistics providers can counter insurgent recruitment and help build local economies and inter-group social networks necessary for establishing and maintaining a sustainable peace. Conversely, the use of HN contractors also can generate several negative, and less obvious, externalities that could undermine the strategic goals of the contingency operation. These include worsening social tensions by empowering one local group over another, enabling illicit economic activities, and creating an artificially inflated supply of service providers that the post-conflict economy may not be able to absorb. U.S. policymakers and military personnel must recognize the potential secondary effects of logistics contracting and take steps to maximize the benefits while limiting the risks of this practice.

Positive Externalities of Logistics Contracting. The use of HN contractors to supplement the U.S. government's capabilities can create secondary effects that benefit the local population and advance the strategic goals of the contingency operation. These externalities include providing employment for local workers who may otherwise be vulnerable to insurgent recruitment, developing local economic capacity, and fostering inter-group relationships.

Countering Insurgencies. According to the 2009 U.S. Government Counterinsurgency Guide, providing economic opportunities to the local population reduces the pool of frustrated, unemployed young men and women from which insurgents can readily recruit.⁸⁸ Logistics contractors, therefore, can be a significant force because they employ local subcontractors and workers to fulfill their contract obligations.⁸⁹ In Iraq and Afghanistan, the U.S. military employs over 30,000 and 78,000 HN contract workers, respectively.⁹⁰

Rebuilding Economic Capacity. The U.S. government, through procuring local services and goods to support near-term operational needs, injected billions of dollars into the economies of Iraq and Afghanistan and assisted in the development of a local workforce, infrastructure, and potential trade opportunities.⁹¹ The use of a HN labor force with limited skill sets may not be the most efficient method for completing required tasks, but this type of government intervention into the market creates the environment for the secondary societal good of developing the long-term economic capacity that is critical to sustaining post-conflict peace.

Repairing Society. Finally, the military's use of HN contractors to transport food, water, and fuel across administrative and societal boundaries within theater can help to improve inter-group relations. For example, the U.S. military in Iraq in 2008 awarded a logistics contract for safe shipment of low-value cargo across tribal regions to the Iraqi Transportation Network, an all-Iraqi consortium of 16 tribally-owned trucking companies.⁹² This contract subsequently has created a network of 174 tribes and over 190 Sunni and Shia tribal leaders with incentives "to combat insurgent-related instability and work together across sectarian boundaries."⁹³

Negative Externalities of Logistics Contracting. The use of the private sector to supplement U.S. government capabilities also can generate several negative, and less obvious, externalities that have the potential to undermine the strategic goal of a contingency operation. These include worsening social tensions by empowering one local group over another, enabling illicit economic activities, and creating an artificially inflated supply of service providers that the post-conflict economy may not be able to absorb.

Exacerbating Existing Tensions. The use of HN contractors – if not handled smartly – risks enflaming rivalries and undermining stability. Some barriers to entry into the logistics market may favor one group over another, particularly those groups who have gained control over key economic resources within the war-torn state. In Iraq and Afghanistan, for example, the HN trucking contracts required the contractor to provide all vehicles, personnel, and convoy

security.⁹⁴ Access to assets on this scale in an austere, war-torn environment may be confined to a few small, well-connected groups, most likely leading to the selection of the most capable contractor from this limited pool. However, awarding contracts to one ethnic or tribal group may further empower them over others and worsen existing underlying tensions.⁹⁵

Enabling Illicit Economic Activities. Unaccompanied and poorly secured HN truck convoys can be exploited by existing political, social, and criminal networks for illicit activities. The U.S. military's HN trucking contracts leverage existing commercial distribution systems to ship goods around theater. The lack of in-transit visibility and effective oversight, coupled with sometimes low pay, allows for the possibility that individuals within this supply chain will engage in the smuggling of illicit goods in order to earn additional income. The risk is greater in environments like Central Asia and Afghanistan, where the narcotics trade, human trafficking, and corruption at many levels of state bureaucracies are endemic. Additionally, well-armed Afghan insurgents and warlords, who often control the territory the HN trucks must traverse, are profiting from poorly armed U.S.-contracted logistics convoys by collecting tolls, taxes, and security payments from drivers.⁹⁶

Creating an Unsustainable Post-Operation Supply. The high level of U.S. demand for logistics services in theater creates a labor supply that – if not effectively transitioned into the post-conflict economy – may become a destabilizing force on peace efforts. As a contingency operation draws down and the demand for contracted services drops dramatically, contractors are likely to shed much of the HN workforce, requiring a significant number of local workers to find new employment. In Afghanistan, for example, the U.S. military employs over 78,000 HN workers⁹⁷ and accounts for more than 8% of total Afghan economic output.⁹⁸ A post-operation reduction in demand of this magnitude without developing alternative avenues of employment likely will stress Afghanistan's fragile licit economy and lead to potentially sustained high unemployment, which is often an indicator of impending political instability.

Conclusion. Reliance on private sector logistics services support in contingency operations has both positive and negative secondary effects that can significantly influence the outcome of operations.

Seminar 9

Essay #3—PSSO Potential Growth in Cyber Security

The PSSO industry over the past decade successfully supported the logistics and private security needs of the United States government in both Iraq and Afghanistan. While the current drawdown in Iraq likely will reduce demand for these services, due to an increasing cyber threat and growing national interest in defending the nation's cyberspace, opportunities for growth in the PSSO industry are emerging in cyber security operations.

President Obama elevated the importance of a cyber threat by declaring it, “one of the most serious economic and national security challenges we face as a nation.”⁹⁹ He called for a cyber security coordinator responsible for “orchestrating and integrating all cyber security polices for the government.”¹⁰⁰ This increase in government concern and funding is expanding the number of firms entering the cyber security market. Traditional defense firms like Lockheed Martin, SAIC, and Northrop are also increasing their cyber security capabilities.

A government response to this national security threat will require establishment of a capable cyber security workforce. In order to succeed, it is essential the cyber security coordinator produce a workforce policy to guide its development prior to a certain upcoming

surge in hiring of both government and contractor cyber security specialists. This essay focuses on PSSO's role in the cyber security market by examining cyber security operations, industry support to government efforts, cyber security market outlook, and workforce challenges.

What are Cyber Security Operations? The importance of protecting government computer systems cannot be underestimated: these critical systems “hold military and national security secrets, confidential federal documents, and personal data.”¹⁰¹ Cyber security is similar to “operations” because it is the frontline defense against individuals and countries attacking and attempting to penetrate critical computer systems.

The nation's cyber security strategy and workforce are highly fragmented across numerous government organizations. Critical components of the strategy are “dispersed across 16 intelligence agencies under the umbrella of the Director of National Intelligence with responsibilities at the DHS, in addition, the DoD is a major participant.”¹⁰² The current cyber workforce, as in most government organizations, is a mixture of government civilians and contractors. Growing interest and funding for cyber security is creating new positions rapidly in all sectors of government. In order to meet the labor demand for a cyber security workforce, the government will likely turn to the PSSO industry to meet this urgent need for talented people.

PSSO Role in Cyber Security Market. Cyber security is emerging as a growing market due to a serious shortage of skilled cyber security professionals in government agencies. These critical specialties include “sensitive government information technology work, computer and network security, vulnerability analysis, intrusion detection, digital forensics, and protocol analysis.”¹⁰³ The increased cyber threat likely will accelerate the urgency to meet this shortage as quickly as possible. However, slow government civilian hiring practices and current pay scales may inhibit a government-employee-only option from meeting the requirement in an adequate timeframe. Therefore, the private sector will probably fill the shortage of skilled cyber warriors. The PSSO industry will also expand into this market in search of additional revenue.

Outlook for PSSO in the Cyber Security Market. The outlook for PSSO firms in the cyber security market looks bright. Over the decades, the USG established many computer systems to serve the populace in day-to-day operations as well as defense. This infrastructure now requires protection from attack. This defense will fall to government professionals who understand how to defend the infrastructure; whether these individuals are government civilians or contractors, is the question. In the short term, the growth for the PSSO industry in the cyber security market looks promising. The federal government is “setting aside \$8.3 billion this year for computer security in response to a 200% increase in cyber attacks since 2006.”¹⁰⁴ In the long term, the stability of the PSSO cyber security market will depend on adequate funding and senior level guidance to determine the right balance of government and contractor employees.

Cyber Security Workforce Challenges. The key challenges to the cyber security workforce are identifying the requirement, defining job descriptions, and establishing contractor roles and responsibilities. First, no single agency exists to define, plan, and execute the operations of a federal cyber security workforce. Second, definitions of cyber security jobs are outdated or non-existent. Finally, no established roles and responsibilities of government and contractors filling cyber security jobs exist; therefore, it is impossible to determine “whether the balance of responsibilities is appropriate.”¹⁰⁵

Conclusion. The conflict maybe ending in Iraq, but it is just getting started in the cyber world. Attacks on the US government agencies are increasing and require an immediate coordinated response. PSSO contractors most likely will play a large role in defending the nation's cyber network by providing expertise to the cyber security workforce. This market is

not only providing an opportunity for growth, but also an opportunity to replace the loss of DoD business due to the drawdown of operations in Iraq. Therefore, a clear policy is required to merge contractor and government civilian efforts to form a successful workforce. Quick response demands the resources of cyber security firms in the PSSO industry.

Col Dwayne Lott, USAF

CONCLUSION

The PSSO industry provides critical contracted base operations, logistics services, training and intelligence support for USG operations in presidentially declared contingencies. The industry is economically healthy and able to support national security requirements. The government does not need to change existing policies to ensure the future health of the industry. Any attempt to do so may have unintended negative consequences which outweigh the marginal gains which could be achieved. Strategic risks are created by the government's reliance on contractors to perform many activities. While contractors generally perform very well and provide services the USG requests at an acceptable price, the government needs to improve its processes to gain the maximum effectiveness from utilizing contractor support in contingency operations.

RECOMMENDATIONS

The following recommendations address three areas of major concern: mitigating strategic risks incurred by a reliance on PSSO contractors, strengthening the government's ability to utilize contractors effectively, and fostering PSSO growth in cyber security:

1. ***Strategic Risk Mitigation***—To improve congruency between national security objectives and the use of PSSO contractors:
 - 1.1. Ensure the operational objectives of host nation logistics contracts are consistent with the strategic goals of a contingency operation.
 - 1.2. Understand the human terrain within a contingency operation and how logistics contracting interfaces with local political and social networks.
 - 1.3. Look for logistics contracting opportunities that link the future of feuding groups to common economic goals.
 - 1.4. Develop a drawdown plan to transition contracted logistics workforce to the legitimate, post-conflict economy.
 - 1.5. Identify all critical functions necessary for sustained operations in a high intensity conflict involving the use of CBRN weapons. Those functions should not be outsourced.
 - 1.6. Information systems for contractors providing critical support to operations should meet the same security requirements as government systems. This should include government accreditation of those systems and consent to monitoring by government agencies.
 - 1.7. Require an approved continuity of operations plan for all contracts providing critical support for contingency operations to ensure operations continue through disruptive events both in theater and in the United States.
 - 1.8. Included critical contractor facilities in the Department of Homeland Security's Critical Infrastructure Protection Plan.

2. ***Better Define the Limits of Contractor Authorities and Responsibilities***—To define the boundaries of contractor support:
 - 2.1. Decompose the concept of inherently governmental into a relatively small set of sub-categories of functions (approximately 6) and then more precisely define inherently governmental within that narrower context.¹⁰⁶
 - 2.2. Recognize and accept private industry as an integral part of the total effort and include them in both wartime and operational planning.
 - 2.3. Include industry capabilities and limitations in development of force planning documents such as the QDR and QDDR.
3. ***Federal Acquisition Regulation Improvements***—To strengthen regulatory guidance:
 - 3.1. The FAR should state all Federal Procurement activities listed in FAR Part 7.5.12 are governmental functions that shall not be outsourced.¹⁰⁷
 - 3.2. Implement the Gansler Commission recommendations to modify FAR part 42 to make DCMA responsible for all DoD expeditionary contract management and responsible for all DoD post, camp and station contract management and provide DCMA sufficient resources for those responsibilities.
4. ***Federal Acquisition Workforce Improvement***—To enhance the effectiveness of the USG acquisition work force:
 - 4.1. Establish Program Managers for Acquisition of Services over \$250M to improve contract management and oversight.
 - 4.2. Establish specific contingency contracting guidance. Each deployable organization with acquisition authority should be required to maintain an off-the-shelf set of regulations that governs contingency contracting. These guidelines should be multi-service and multi-agency with very specific approval authorities.
 - 4.3. Require all USG agencies to follow the Defense Acquisition Workforce Improvement Act certification processes for certification of acquisition personnel.
 - 4.4. Implement common requirements and standards for professional development across all USG departments for acquisition professionals.
 - 4.5. Provide contracting officers additional training on utilization of fixed price contracts.
 - 4.6. Ensure appropriate contract management and oversight training for non-acquisition personnel at all levels before deploying to a contingency operation.
5. ***Legal Jurisdiction Clarification***—To remove ambiguity and improve accountability:
 - 5.1. Establish definitive guidance on which UCMJ articles are applicable to civilians in contingency environments and then exercise UCMJ jurisdiction to its full authority.
 - 5.2. Enact CEJA to provide jurisdiction over all federal employees and contractors when supporting USG missions overseas.
6. ***Foster Growth in Cyber Security Operations***—To foster effective integration of PSSO contractors into the growing cyber security segment of the PSSO market:
 - 6.1. Cyber Command should have a highly capable workforce based on a public-private partnership.
 - 6.2. Determine clear lines of authority and responsibilities between government and contractor personnel and establish common certifications for all personnel.

Endnotes

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- ¹³ QuickMBA, "Competitive Advantage," <http://www.quickmba.com/strategy/competitive-advantage>.
- ¹⁴ The data for this table is compiled from Reuters financial information and Yahoo! Finance for each of the five firms, available at <http://www.reuters.com/finance/> and <http://finance.yahoo.com>. All information was current as of 22 March 2010.
- ¹⁵ PEG Ratio defined, <http://moneycentral.msn.com/investor/alerts/glossary.asp?TermID=22>, 14 Mar 2010.
- ¹⁶ Stanger, 14-15.
- ¹⁷ Office of Management and Budget, *Acquisition and Contracting Improvements Plans and Pilots*, (Washington DC, December 2009) 1.
- ¹⁸ "Department of Justice, *FY 2009 Performance and Accountability Report*, (Washington DC, 2009) I-7, www.justice.gov/ag/annualreports/pr2009/sect1/resrouceinfo.pdf.
- ¹⁹ Department of Energy, *FY 2011 Congressional Budget Office*, (Washington DC, 2010) 1, www.mbe.doe.gov/budget/11budget/Content/FY2011Highlights.pdf.
- ²⁰ Stanger, 12.
- ²¹ W. Patrick Lang in Walter Pincus, "Defense investigates information-operations experts," *The Washington Post*, March 29, 2010, A17.
- ²² *Ibid.*
- ²³ Tim Shorrock, *Spies For Hire; The Secret World of Intelligence Outsourcing* (New York: Simon & Schuster, 2008,) 11.
- ²⁴ *Ibid.*, 19-20.
- ²⁵ *Ibid.*, 18.

²⁶ Briefing presented by to the ICAF PSSO Industry Study on March 25, 2010. In accordance with National Defense University Policy, all material was presented with an understanding it would not be attributed to any individual.

²⁷ Moshe Schwartz, Congressional Research Service, *The Department of Defense's Use of Private Security Contractors in Iraq and Afghanistan: Background, Analysis and Options for Congress*, (Washington DC, 2009) 13.

²⁸ This judgment is the author's based on assimilation of data presented by numerous firms and departments to the ICAF PSSO Industry study. In accordance with National Defense University Policy, all material was presented with an understanding it would not be attributed to any individual.

²⁹ Roger D. Carstens, Michael A. Cohen, and Maria Figueroa Kupca, *Changing the Culture of Pentagon Contracting* (Washington, D.C.: New America Foundation, October 2008) 13.

³⁰ Robert Brodsky, *Coming soon: New guidelines on which federal jobs can be outsourced*, Government Executive.com website, http://www.govexec.com/story_page_pf.cfm?articleid=44691 (accessed March 1, 2010).

³¹ Michael J. Thibault, et al, *Commission on Wartime Contracting in Iraq and Afghanistan, At What Cost? Contingency Contracting in Iraq and Afghanistan Interim Report*, June 2009, 8.

³² Federal Acquisition Regulation, (Chicago: Walters and Schuster, July 2009,) 19.

³³ *Ibid.*, 23.

³⁴ John Hutton and William Solis, Government Accountability Office, *Defense Acquisitions; Actions Needed to Ensure Value for Service Contracts GAO-09-643T*, (Washington DC, April 23, 2009), www.gao.gov/newitems/d09643t.pdf.

³⁵ John K. Needham Government Accountability Office, *Acquisition Workforce DOD Can Improve Its Management and Oversight by Tracking Data on Contractor Personnel and Taking Additional Actions GAO-09-616T*, (Washington DC, February 2010) Appendix A.

³⁶ The Department of Defense, *Quadrennial Defense Review*, February 2010, 76 http://www.defense.gov/QDR/images/QDR_as_of_12Feb10_1000.pdf.

³⁷ Jeffrey P Parsons, Executive Director U.S. Army Contracting Command. Statement Before the Subcommittee on Homeland Security and Governmental Affairs on Contracting Efforts in Afghanistan. December 17, 20097.

³⁸ Title 10 U.S.C., Subtitle A, Part II, Chapter 47, Sec.802, Article 2(a)(10) (2009): 1, http://www.law.cornell.edu/uscode/10/usc_sec_10_00000802----000-.html (accessed April 26, 2010).

³⁹ Steven P Cullen, "Out of Reach: Improving the System to Deter and Address Criminal Acts Committed by Contractor Employees Accompanying Armed Forces Overseas." *Public Contract Law Journal* 38, no. 3, (April 1, 2009): 509-545, 7.

⁴⁰ S.2979 – *Civilian Extraterritorial Jurisdiction Act (CEJA) of 2010*, 111th United States Congress. <http://www.opencongress.org/bill/111-s2979/show> (accessed April 26, 2010).

⁴¹ Kevin Whitelaw, "Use of Private Security Grows in Iraq, Afghanistan, 1" <http://www.npr.org/templates/story.php?storyId=113389274> (accessed October 1, 2009).

⁴² 42 Schwartz, 4-5.

⁴³ "The Constitution of the United States," *American Legacy, The United States Constitution and other Essential Documents of American Democracy*, (Calabasas, CA: Center for Civic Education, 2005), 17. See also Eugene B. Smith, "The New Condottieri and US Policy: The Privatization of Conflict and Its Implications." *Parameters*, Winter 2002/2003: 106. (Note:

Letters of marque and reprisal were used extensively on the high seas during the 1800s when private citizens were legally authorized and reimbursed for captures sanctioned by the U.S. Government.)

⁴⁴ Schwartz, 1.

⁴⁵ Ulrich Petersohn, "Outsourcing the Big Stick: The Consequences of Using Private Military Companies", Harvard University Working Paper Series No. 08-0129, (June 2008), 2, <http://www.wcfia.harvard.edu/node/3121>.

⁴⁶ Ibid., 3-4.

⁴⁷ Schwartz, 6-8 and Whitelaw, 1.

⁴⁸ *FY2009 National Defense Authorization Act*, U.S. Public Law 110-181, section 864.

⁴⁹ Smith, 111-112.

⁵⁰ Marc Lindemann, "Civilian Contractors under Military Law" *Parameters*, Autumn 2007, 83.

⁵¹ Rupert Smith, *The Utility of Force: The Art of War in the Modern World*. New York City, NY: Vintage Books, 2008.

⁵² Peter Singer, *The Private Military Industry and Iraq: What have we learned and where to next*, (Geneva, Switzerland: Geneva Centre for the Democratic Control of the Armed Forces, 2004), 11.

⁵³ Lindemann, 84.

⁵⁴ Smith, Eugene, 105.

⁵⁵ Singer, 11.

⁵⁶ Peter Singer, "Can't Win With 'Em, Can't Go To War Without 'Em: Private Military Contractors and Counterinsurgency," *Foreign Policy at Brookings Policy Paper Number 4*, September 2007, 13-14. (Note: For more details on Blackwater, see James M. O'Brien thesis).

⁵⁷ James M. O'Brien, II, "Private Military Companies: An Assessment", (Naval Postgraduate School Thesis, Monterey, CA: September 2008), 43. (Note: O'Brien provided details on the battle to save the CPA facility in Najaf where 8 Blackwater employees fought alongside 4 U.S. Marines holding off insurgents the entire day. During the fight, a wounded Marine was medevac'd in a Blackwater MD-530 Little Bird.)

⁵⁸ Public Papers of the President of the United States, (Washington, D.C.: Government Printing Office, 1960-61), Vol. 8, 1036-39.

⁵⁹ Singer, "Can't Win With 'Em...., 2.

⁶⁰ Smith, Eugene, 113.

⁶¹ Lindemann, 84.

⁶² *Military Extraterritorial Jurisdiction Act*, Public Law 106-523, Chapter 212, 3261.a.1, 106th Congress, 12 Nov 2000, <http://www.pubklaw.com/hi/pl106-523.pdf>.

⁶³ Lindemann, 87.

⁶⁴ O'Brien, 27.

⁶⁵ Lindemann, 86-88 and O'Brien 27.

⁶⁶ Sam Perlo-Freeman and Elisabeth Skons, "The Private Military Services Industry," *Stockholm International Peace Research Institute (SIPRI) Insights on Peace and Security*, No. 2008/1, September 2008, 17.

⁶⁷ Schwartz, 5.

⁶⁸ Peter Singer, *The Private Military ...* 19.

⁶⁹ Ibid., 20.

⁷⁰ Oxford Analytical Daily Brief Service, "United States: Pentagon contracting faces new scrutiny," May 29 2008 <http://proquest.umi.com/pqdweb?did=16888047831&Fmt=3&clientId=3921&RQT=309&VName=PQD 2> (accessed October 30, 2009).

⁷¹ Ibid.

⁷² Esther Pan, "Iraq: Military Outsourcing", Council on Foreign Relations Backgrounder, 20 May 2004, <http://www.cfr.org> 5 (accessed October 7, 2009). Note: Author Ulrich Petersohn also refers to this and calls it the demand-capabilities gap.

⁷³ Petersohn, 44.

⁷⁴ Ibid., 10.

⁷⁵ Ibid., 41.

⁷⁶ Ibid., 46.

⁷⁷ Peter Singer, "Can't Win With 'Em...13-14 Note: Blackwater employees also displayed heroism under fire and many are previous highly professional tier 1 Special Operations Forces. For an excellent example, refer to James M. O'Brien, II, "Private Military Companies: An Assessment", Naval Postgraduate School Thesis, (Monterey, CA: September 2008), 43. He details a battle to save the CPA facility in Najaf where 8 Blackwater employees fought alongside 4 U.S. Marines holding off insurgents for an entire day. During the fight, a wounded Marine was medevac'd in a Blackwater MD-530 Little Bird.

⁷⁸ Schwartz, 10.

⁷⁹ Ibid.

⁸⁰ Ibid., 11.

⁸¹ Public Papers of the President of the United States, (Washington, D.C.: Government Printing Office, 1960-61), Vol. 8, 1036-39. (Note: During his farewell remarks on January 17, 1961, President Eisenhower warned, "we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex...")

⁸² Schwartz, 12.

⁸³ Ibid., 4.

⁸⁴ Ibid.

⁸⁵ Ibid., 13.

⁸⁶ Ibid.

⁸⁷ The Congress of the United States, Congressional Budget Office, *Contractors' Support of U.S. Operations in Iraq* (August 2008): 4-5; United States Department of the Army, *Counterinsurgency*, Field Manual 3-24 (2006): 8-6; and The Congress of the United States, Congressional Budget Office, *Logistics Support for Deployed Military Forces* (October 2005): ix-xvi.

⁸⁸ United States Government, *U.S. Government Counterinsurgency Guide* (January 2009): 3.

⁸⁹ Thibault, 34.

⁹⁰ Schwartz, 10-13.

⁹¹ Gerry Gilmore, American Forces Press Service, "Economic Reconstruction Programs Boost Iraqi Payrolls, Businesses," <http://www.defense.gov/news/newsarticle.aspx?id=50519>, 16 July 2008.; Karl Eikenberry, United States Ambassador, Embassy of the United States in Kabul, Afghanistan, "Afghan First," http://kabul.usembassy.gov/speech_111109.html, 11 November 2009.

⁹² Lieutenant Colonel Michael J. Falk, United States Army Reserve, "Iraqi Transportation Network," *Army Sustainment* (November-December 2009)

http://www.almc.army.mil/alog/issues/NovDec09/transpo_network.html.

⁹³ Commander Ken Titcomb SC, United States Navy, "Iraqi Transportation Network," *The Navy Supply Corp Newsletter* (September-October 2009);

<https://www.navsup.navy.mil/scnewsletter/2009/sep-oct/cover2>. Crescent Valley Investments, "Iraqi Trucking Network," http://www.cv-investments.com/D-NETWORK/S_ITN_Case.html, 2010.

⁹⁴ United States Department of the Army, Joint Contracting Command, Iraq/Afghanistan, "Iraq Theater Wide Trucking," Contract Solicitation W91GDW-08-R-4001 (October 2007):

<https://www.fbo.gov/index?s=opportunity&mode=form&id=8569e8cd59fed0bb1928cd95f22ba520&tab=core&cvview=1>; United States Department of the Army, Joint Contracting Command, Iraq/Afghanistan, "Host Nation Trucking," Contract Solicitation BRCCHNT101909-A (October 2009): <https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=da24afeffccee231625a7963267af62a>.

⁹⁵ United States Government, *U.S. Government Counterinsurgency Guide* (January 2009): 25

⁹⁶ John F. Tierney, United States Congressman, "Chairman Tierney Comments On Subcommittee Investigation Into The Department Of Defense's Afghan Host Nation Trucking Contract," (16 December 2009)

http://oversight.house.gov/index.php?option=com_content&task=view&id=4719&Itemid=47.

⁹⁷ Briefing presented by to the ICAF PSSO Industry Study on 22 January 2010. In accordance with National Defense University Policy, all material was presented with an understanding it would not be attributed to any individual.

⁹⁸ Karl Eikenberry, United States Ambassador, Embassy of the United States in Kabul, Afghanistan, "Afghan First,"

http://kabul.usembassy.gov/speech_111109.html, 11 November 2009.

⁹⁹ Booz, Allen, Hamilton, "Strengthening the Federal Cyber Security Workforce," *Cyber IN-SECURITY*, (2009): i.

¹⁰⁰ The White House, "Securing Our Nation's Cyber Infrastructure," *Speech by President Obama*, http://www.whitehouse.gov/the_press_office/remarks-by-the-president-on-security-our-nations-cyber-infrastructure, May 29, 2009.

¹⁰¹ Booz, 1.

¹⁰² Ibid., 7.

¹⁰³ Ibid., 2.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid., 7.

¹⁰⁶ For example, this method would develop a definition for inherently governmental policy management functions and a separate definition for inherently governmental contracting functions. Based on research done by COL Bradley Phippen, the seminar recommends the following six sub-categories of inherently governmental functions: 1) Decision Making, 2) Policy Management, 3) Human Resource Management, 4) Budget and Finance, 5) Legal, and 6) Contracting.

¹⁰⁷ Based on research by COL William Sander, the seminar recommends changing the following specific FAR references to governmental functions. (i) Determining what supplies or services are

to be acquired by the Government. (ii) Participating as a voting member on any source selection boards. (iii) Approving any contractual documents, to include documents defining requirements, incentive plans, and evaluation criteria. (iv) Awarding contracts. (v) Administering contracts. (vi) Terminating contracts. (vii) Determining whether contract costs are reasonable, allocable, and allowable. (viii) Participating as a voting member on performance evaluation boards.



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