

SHOULD THE DEFENSE INDUSTRIAL BASE BE SAVED USING MULTI-YEAR CONTRACTS?

BY

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USAWC STRATEGY RESEARCH PROJECT

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CONTRACTS?**

by

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ABSTRACT

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Since the end of the Cold War the United States Defense Industrial Base has gotten smaller by mergers and acquisitions in the market place and from pressure by government legislators looking to harvest money from the Department of Defense and specifically from the Department of the Army. One approach to easing the stress on the industrial base is for the Army to use an increased number of congressionally approved multiyear procurement contracts. The critics of this practice cite the loss of flexibility to reallocate funding in the Army as well as the perceived loss in oversight by members of congress who authorize and appropriate money to the services. Should the Army pursue more multiyear procurement contracts to allow the defense industry to better allocate resources or should the Army continue using shorter contracts in order to maintain funding reallocation when necessary?

SHOULD THE DEFENSE INDUSTRIAL BASE BE SAVED USING MULTI-YEAR CONTRACTS?

Since 2003 the Department of Defense (DoD) has been struggling to deal with a convergence of two issues affecting its ability to defend the nation. The first problem was set in motion at end of the “Cold War” when there was a universal belief that the world was a safe place now that the “Iron Curtain” had come down and the threat of a war with the Soviet Union was no longer probable. Most thoughtful and well intentioned members of the government surmised that the massive defense establishment was costly, too large and could benefit from being “right sized.” Additionally, the tax dollars spent to fund the DoD could be harvested in a “peace dividend” and reallocated to other government programs. In 1989, the US military end strength was 2,163,200 with the Army having a force of 776,400.¹ The argument logically followed that a reduced force structure would require less equipment meaning there would be a need for a much smaller industrial capability. It was not a stretch to determine that preserving manufacturing capabilities necessary for heavy weapon systems like the Abrams Tank and Bradley Fighting Vehicle might be unnecessary especially in the absence of a viable threat. DOD consequently pursued an active policy of consolidation and reduction of the defense industrial base. In 1980, there were 72 large defense industry companies actively competing for Department of Defense funding in support of military programs. Through mergers, acquisitions, and a general lack of interest in competing for defense business, that number had dwindled to five by 2004.²

The second issue was the emergence of the “Revolution in Military Affairs” thinking which foresaw the advent of high technology weapon systems supplanting

manpower intensive military formations. This transformation would allow for additional endstrength reductions and the savings of ever increasing personnel costs associated with the increasingly expensive all-volunteer-force. The Army concluded that these weapon systems would be more expensive to procure initially but were justified by avoiding the higher personnel costs of the systems they replaced.

The final aspect of the equation arrived on September 11, 2001. The airplanes, turned into cruise missiles, that struck the World Trade Towers, a field in Pennsylvania, and the Pentagon ushered in a type of warfare not fully appreciated by the defense establishment. The start of the “Global War on Terror” forced the US military to confront an enemy much different than the decades of research, development, engineering and procurement had been designed to fight. This asymmetric type of warfare would be less technology centric placing more demands for soldiers to put “boots on the ground.” No unmanned aerial or ground vehicle, laser guided munitions, or stealthy aircraft would be able to take the place of an American Soldier or Marine patrolling the streets in Iraq or Afghanistan. The problem was that the Pentagon had reduced its personnel strength over time to reduce costs since the advancements in technology reduced the amount of personnel needed to man the force. As weapon systems became more lethal, they needed fewer and fewer humans in the loop. Since 1989, the size of the force had been cut by nearly 25 percent through 2007 to 1,506,757 in the US military, with an Army of only 488,944.³ Though the events of September 11, 2001 did not impact the industrial base, they showed that the robust and tremendously capable equipment we had been designing, testing and building for half a generation would be somewhat ill suited to confront the new enemy.

This new enemy did not wear the uniform of a single nation but instead, the Taliban and Al Qaeda were united in a set of beliefs that transcended national identity. They share a hatred of the United States, western European countries, and a hate of those of Christian and Jewish beliefs. They also quickly realized that what they lacked in weaponry could be offset through avoiding the strengths of the U.S. forces while simultaneously exploiting its weaknesses. As a result, much of the equipment purchased by the Department of Defense over the last two decades had limited effects on an enemy who had no intention of challenging it. There would be no tank on tank battles since neither the Taliban nor Al Qaeda had any tanks. Instead, the terrorists realized that our tanks, while able to stop a 105 millimeter Sabot round, were vulnerable to Improvised Explosive Devices (IEDs), cheap, proliferated explosives easy to assemble and detonate.

Finally, the conclusion of the Cold War symbolized by the collapse of the Berlin Wall gave many in the U.S. government a reason to look optimistically towards a future of a smaller military force and significantly reduced annual defense appropriation budgets. Funding normally spent on national defense could be diverted and used for other less bellicose domestic programs. We would be turning potential swords into future plowshares, since the nation's arsenal was full of swords that were sharp enough to silence any enemy in the world. The defense industry, no stranger to changes in market demand, began a consolidation unlike any before.

The issue of the adequacy of the industrial base to meet Army demands for the materiel needed to defeat Al Qaeda and the Taliban is not the premise of this paper. The delays in providing materiel for Operations Iraqi or Operation Enduring Freedom

have been more about meeting technical requirements and less about the state of the industrial base. The question is to whether all future enemies will look like the enemies we are fighting today. At some point the nation might be at war with Russia or China and need a robust manufacturing capability similar to what was needed in World War II. What is worthy of investigation are two questions. First, should the defense industrial base be protected against the effects of normal business cycles so that it is viable if needed in an all out war? Second, should the Department of the Army use more multi-year procurement contracts to enhance the efficiency of the manufacturers producing the equipment for the Army? This paper will objectively investigate the merit of these two questions.

The Declining Defense Industrial Base

The reduction in numbers of defense companies that occurred in the 1990s, according to Dr. Pierre Chao, was caused by normal business market factors that can affect any sector of the economy. He stated that consolidation in the defense industry was effected by both the cyclical forces of demand as well as structural changes among the companies in the defense industry marketplace. The cyclical changes were caused by national “peace dividend” goals to reduce defense spending so that fiscal deficits could be reduced or eliminated. Since less would be spent on weapons, we would be entering a phase of the cycle in which the demand for military materiel would be decreased. The structural changes of the defense industry described by Dr. Chao were caused by market competition for fewer dollars, the tremendous shortening of technology cycles, globalization of the world’s economy, and the spinning off of defense small business units by large corporations looking to focus on a single core business. ⁴

Among Dr. Chao's causes for the structural changes, globalization is the most compelling. Globalization is defined as the effort to extend outward to other parts of the world to make items available and producible worldwide.⁵ Globalization is occurring across most aspects of manufacturing segments and is not unique to defense companies. Look no farther than your local Walmart to see the items on the shelves made in China, Viet Nam or Mexico. In a recent survey of 217 senior executives worldwide, over 90 percent thought globalization was unstoppable regardless of what happens to the economy or if protectionist measures are undertaken. Attempts to stop the world's movement towards a global economy would be similar to attempting to turn back the tide of the industrial revolution in the late 1800's.⁶ A recent Government Accountability Office report cited concerns that consolidation of the industrial base has intensified the debate about the ability of the United States to maintain military superiority in critical technology areas. The report recommends that all services monitor supplier base concerns for gaps that might impact the department of defense.⁷ Understanding where these potential gaps are by industry might be of value if critical items can be preserved for domestic production. The difficult part is predicting what critical technologies will be required in the future and what sort of intervention is required to preserve the capability. Fundamentally though, one will always return to the argument as to whether you can successfully protect every item that might be required across the entire breadth of the defense industrial base.

A recent example of globalization of the industrial base was the Air Force effort to replace its aging fleet of KC-135 refueling aircraft. The two competitors were Boeing and Airbus. There were positions on both sides of the argument, not to mention both

sides of the Atlantic Ocean, with vastly different ideas on how to award the contract. On one side was the argument for to preserve the American aviation industrial base. This side of the discussion stated the need to keep this multi-billion dollar contract, for U.S. Air Forces planes, on U.S. soil to assist in maintaining our aviation industrial base. Across the ocean, the European Aeronautic Defense Company (EADS), who wanted to compete for the project, touted their efficiency and their role in support aircraft to many North Atlantic Treaty Organization (NATO) militaries. A recent Op-Ed piece discussing this issue stated that the contract should be awarded to the contractor who provides the best product to the force, whether it was from the United States or not. The focus should be on getting the best product at the best price and that saving the U.S. aircraft industrial base was a secondary issue and not the priority.⁸

The Department of Defense admits that it has concerns with the viability of the industrial base but not to the point that it is willing to advocate the need for significant change. Mr. Shay Assad, Director of the DoD Defense Procurement Acquisition Policy and Strategic Sourcing, is responsible for all acquisition and procurement policy for DoD. In a recent interview he stated that industrial base considerations are not necessarily a source selection criteria and that doing so would only add another cumbersome element to the already complicated source selection process.⁹

The Defense Business Board, a seven year old organization consisting of 20 major defense company industry executives, met recently to express concerns about a disintegrating relationship between the Pentagon leaders and the heads of the various defense companies.¹⁰ The group stated it “is sounding alarms about the lack of communication between the Pentagon and industry brass about the performance of

major programs and other crucial issues, a trend panel members say was fueled, in part, by fears spawned by the Air Force tanker lease scandal.”¹¹ In the eventual scandal associated with the tanker decision, Mrs. Druyan, the Air Force Acquisition Executive, was prosecuted for improper communication with Boeing during contract negotiations.¹² The prosecution of Druyan served as a warning to all in the Pentagon to be careful when talking with industry counterparts. If you go too far, you too might end up in jail.

Mr. Mike Ivy, Director of Army Tactical Vehicles for the Oshkosh Truck Company made a similar observation of declining communication between industry and the Army. At the upcoming 2009 Association of the United States Army (AUSA) winter convention in Fort Lauderdale, Florida, few Army leaders have scheduled appointments to meet with industry representatives displaying future defense products. Specifically, Mr. Ivy was dismayed at the general lack of interest in the part of the Army leadership in seeing what industry has to offer. He stated that communication has gotten so strained between the entities that the Winter AUSA convention has turned into “a bunch of contractors talking to other contractors since the Army is no longer attending.”¹³

A lack of communication is only one of the problems within the defense industry. There is also worry that once the defense industry goes into decline, it will take years to get the core competencies of the industry viable again when needed. The long lead times required to deliver lethal weapon systems to the field are usually indicative of the bureaucracy of the Pentagon in sorting out funding and requirements and not for a lack of readily available manufacturing capacity. While it is not unusual for major weapon systems to take more than seven years to get from concept to fielding, these times do

not consider delays that might occur if a diminished industrial base capacity is added to the timeline.

Most notable is the displacement of the skilled workers normally working on weapon systems in the defense industry to other areas of manufacturing, taking their skills and expertise with them. These movements are on top of the losses in the manufacturing industry witnessed over the last decade. A recent survey by the National Association of Manufacturers, showed that of the 815 manufacturing companies they polled, 90 percent were experiencing either severe or moderate shortages of skilled workers.¹⁴ This survey was not the only one providing a pessimistic outlook for manufacturing jobs nationwide. In the August 2008 Bureau of Labor Statistics report, over 56,000 jobs in the Manufacturing sector were lost in the 2nd quarter of 2008. These losses accounted for 22 percent of private non-farm extended layoff events and 19 percent of related separations in the second quarter of 2008. Contrast this with the same quarter in 2007 where 20 percent of the events and 17 percent of the separations were attributed to manufacturing. The manufacturing sector losses in 2008 are the highest since 2003. Additionally, the largest losses were in the transportation equipment manufacturing segment which are positions associated with heavy duty truck manufacturing.¹⁵ While the positions lost were part of the overall manufacturing sector and not defense specific, it does highlight that the smaller pool of experienced workers will make mobilization of the defense industry longer in times of war.

The decreased amount of defense business is not exclusively due to a lack of government contracts. A more recent phenomenon is occurring where traditional defense manufacturers are not winning the competition for military contracts. Mr. Stan

Steenrod, a member of the Senior Executive Service and the Resource Director for the Army G-8, states the current example of the Mine Resistant Ambush Protected Vehicle, the MRAP. The contract award went to British Aerospace Engineering Corporation (BAE) and not to the major truck manufacturers like the Oshkosh Truck Company manufacturer of the Heavy Expanded Mobility Tactical Truck (HEMTT) or Stewart and Stevenson manufacturer of the Army's new Family of Medium Tactical Vehicles (FMTV).¹⁶

Mr. Steenrod also discussed a recent example of attempts to broaden the field of competitors to modernize the Abrams tank. The General Dynamics Company, Land Systems division (GDLS) was the original manufacturer of the M1A2 Abrams Tanks as well as the System Enhancement Package (SEP) upgrade. The Army G-8 wanted to open the competition for the refurbishment work to companies other than GDLS in an attempt to drive down the cost of each rebuild while at the same time expanding the circle of companies capable of performing this type of work. The list of companies capable of performing the work included the United Defense Limited Partnership (now British Aerospace Engineering) manufacturer of the Bradley Fighting Vehicle, truck companies such as Oshkosh, or even the domestic "big three" car manufacturers. When word of this idea leaked outside the walls of the Pentagon's E Ring, the Assistant Secretary of the Army for Acquisition, Logistics and Technology and the Army G-8 were put under great pressure to award the work to General Dynamics. Mr. Steenrod stated "there was great resistance to consider anyone other than GDLS to perform the work".¹⁷ The pressure from outside the Pentagon worked and ultimately the refurbishment contracts were awarded to GDLS.

Concerns about globalization of the defense industry have been tempered by analysts who cite the cost savings that can be achieved by procuring a similar item from a supplier outside the U.S. at a lesser cost or because there is no longer a domestic supplier of the part. In addition to the cost savings, there are the thoughts of Mr. Tim Mead, Professor at the Defense Acquisition University. “Can a nation really afford to invest in preserving the production capability of every single item that it might need in time of war?”¹⁸ Mr. Mead also believes that the rapid changes in the commercial market place are the engine that is driving improvement and changes in technology. It is impossible for the government to keep up with the advancements in a number of defense related technologies through preservation. In Mead’s opinion, these products benefit from being in the commercial sector so that the potentially huge civilian use market can make them better.

The reduced cycle time for technologies is also a key reason to leave these products in the civilian domain. According to Mead, improvements in technologies that used to take years are now “completely overcome by changes in the market in time periods as short as 18 to 24 months.”¹⁹ That would mean that investments we make in a given defense competency could be obsolete well before it might ever be procured. Another interesting observation made by Mr. Mead was the social engineering that occurs within the government contracting arena that might not be required in private industry. Specifically, awarding government contracts to disabled military veterans, small business set asides, or minority owned disadvantaged businesses, may not be the most efficient way to operate a business, but a key tenet of the Defense Federal Acquisition Regulation (DFAR). While possibly less optimal, these programs are

designed to meet the requirements for a better society and not strictly to meet efficiency in the marketplace.²⁰

Colonel Harry Greene, Director of Materiel, Deputy Chief of Staff of the Army for Programs, G-8, has the responsibility of looking across all Army programs to meet the equipping needs of the Army now and into the future. COL Greene describes other factors that change the dynamic as it pertains to the industrial base. Specifically, those managing the programs in the Department of Defense and inside the Pentagon get “lots of help from the Army leadership, Capitol Hill, and the Office of the Secretary of Defense” when making decisions on how to fund individual programs.²¹ This “help” comes in the form of pressure and guidance that might not always be consistent with the goals for equipping the Army. He believes that support of the industrial base would be warranted if the Army had a dependency on a single core business. This however is not the case since the Army has requirements for equipment across a number of technologies, companies, locations. Additionally, political interests in the form of preserving employment in a Congressional district or State are inherent in this process and will always be part of the discussion as well as the decision criteria.

Multi-Year Procurements

When the Founding Fathers crafted the Constitution of the United States they insured that the balance of power between the Executive and Legislative branches of government would be clear, intertwined, and tempered. In Article 1, Section 8 of the United States Constitution it describes the power vested in the Legislative branch of government. Among the delineated military powers are “To raise and support armies, but that no appropriation of money for that use shall be for a longer term than two

years.”²² This two year period was done to preclude the creation of large standing armies since Congress alone had the power to stop paying the bills. The Federalist Papers written between October 1787 and May 1788 were designed to inform and convince residents of the state of New York to vote in favor of the newly written United States Constitution. In Federalist Paper number 24, Alexander Hamilton explained that the power necessary to raise an army should be vested in the Legislature and not in the Executive branch of government. Since the members of Congress were elected periodically and represented the people who were largely distrustful of large standing armies, it was appropriate that Congress have the authority over funding of the Military for periods of no more than two years.²³

Members of Congress, and the professional staffs that support them by providing expertise and longevity, take this responsibility very seriously. A manifestation of their interest in how the Army spends its procurement funding is seen in the annual “DASC Parade.” This event allows each Department of the Army Systems Coordinator (DASC) the opportunity to brief the President’s budget request submission for his Army program to the professional staff members of the House and Senate Armed Service and Appropriations Committees. This event is designed to insure that the funding that was appropriated last year was spent correctly and to make sure that the nation still requires the program to be funded. It is generally a polite interchange, but one that requires great adeptness to avoid the loaded questions designed to find a chink in the program’s armor.

This Congressional “power of the purse,” fundamental to the running of our Government, is not an efficient way to provide cost effective equipment to the military.

Weapon systems that are in production, cost effective, and achieving the specifications of their contract, must also still be reviewed each year for continued funding. The respective defense manufacturers understand that even if successful funding in the next fiscal year is not guaranteed. Ideally a program would be funded to the level required and left alone to acquire the equipment. Changes in total quantity purchased or changes in the year that the equipment will be delivered, whether directed by Congress or the Army, can have serious implications on the cost of each unit. As cost rises, so does the level of scrutiny ultimately asking “why did it get so expensive?”

Attempts to mitigate this risk can be pursued by a congressionally approved Multi-Year Procurement Contract or “multiyear” as they are commonly called in defense budget circles. A multiyear procurement is one in which Congress approves the DoD and specifically the Army to purchase a quantity of a weapon system for a period of time in excess of two years. “Multiyears” are actually part of the Defense Authorization Act of the year they are approved giving them a nearly bullet proof status when considered for reallocating funds. An example of a multiyear would be a contract with the Lockheed Martin Corporation for the purchase and delivery of 50 Terminal High Altitude Area Defense (THAAD) missiles a year for the next five years. There are benefits of this contract type for both the Army and for Lockheed Martin. The Army gets a volume discount of sorts based on a commitment to purchase the 250 missiles spread over the five years. The Army will share in the favorable pricing agreements that Lockheed Martin is able to secure so it gets the missiles at a lower price. Lockheed Martin and its subcontractors like the arrangement since they can organize their production facility, size the labor force, and contract for the correct quantity with suppliers, knowing that

they will be in business for the length of contract. The total cost of the equipment to the Army is surely less costly than it would be had the same quantity been purchased in a series of single year contracts open to the effects of inflation and cost growth. Either the Army or the Lockheed Martin would freely ask the question “what is not to like? “

The answer to the question could come from a number of sources including those in the legislative branch of government who are not as enamored with the arrangement. Once a multi-year contract is approved by Congress, it must be funded each year in future Defense Authorization Acts unless Congress opts to “break” the multi-year contract. This future authorization to acquire property reduces Congress’ ability to have the kind of oversight it deems essential to killing programs that exceed agreed upon cost, schedule, or if the program is no longer required for our nation’s defense. Because of the perceived loss of oversight, Congress is hesitant to consider or much less approve many multiyear procurement requests.

Congress is not the only body with concerns about multiyear procurement contracts. Many key members in the Pentagon, uniformed and civilian, involved with the budgeting process dislike the practice of requesting multiyear contracts since each reduces the services flexibility to reallocate and reprogram funding in the year of execution. According to Stan Steenrod, the Army always has bills to pay where no funding resources have been provided. This has been especially true during the Global War on Terror. Prior to the approval of the various supplemental funding bills, urgent unfunded requirements were paid for using money from the Army’s investment accounts, the accounts funded to procure current and future Army equipment. “When a multi-year procurement contract is approved by Congress it ties the Army’s hand by

making it extremely difficult to move the money to where it is needed immediately.” However, he does not think that multiyear procurement contracts are without virtue given the stability they provide for determining the unit cost of an item. Mr. Steenrod gave the example of the relationship between changing quantity and price. “When the Army reduces the quantity of a helicopter system by X, it fully understands that the price of each helicopter will go up by Y.”²⁴ While this is not desired, it is understood to be part of the risk of changing the rules of the game when dealing with defense contractors.

COL Harry Greene also understands the virtue of the multiyear procurements especially given their ability to bring a sense of “fiscal stability” to those managing the program and to the manufacturer of the piece of equipment.²⁵ He senses that there will always be resistance due to the lack of flexibility to reallocate the funding, the political impacts of election years, and when a program has a “miserable year of execution.” COL Greene does think multi-year procurement contracts are a good idea on “big, expensive programs” when there is an opportunity for the Army to save large amounts of money. Otherwise, it is unlikely that the cost savings will ever justify the loss of funding flexibility.²⁶

Mr. Tom Mullins, a member of the Senior Executive Service and the Resource Integration Manager for the Assistant Secretary of the Army, Acquisitions, Logistics, and Technology sees multi-year procurements in a similar vein. “Multi-year procurements can be a good deal, but there can be a huge cost in the loss of flexibility. You are asking people to look into the future and make a guess about the needs of the Army.”²⁷ Mr. Mullins states that multi-years can work but they must be structured in a manner to provide the cost savings desired but with flexibility for the Army to “speed up or slow

down” the production of an item within the limits of the program. Mr. Mullins described this approach being used successfully in the contract to purchase Low Rate Initial Production (LRIP) units for the Joint Light Weight 155MM Howitzer over a two year period. The contract saved the taxpayer over a third of the cost had the howitzers been procured using two, one year contracts vice the single two year contract that was used.²⁸

Conclusions

An argument can be made for increasing the number of multi-year procurement contracts if one believed in the following three points. First, that the defense industrial base needs to be preserved across the spectrum of technologies for use in time of war since this collection of industries prepared and ready may be essential to our nation’s defense. Second, that through the use of multi-year procurement contracts we could provide the continuity to the industrial base that was necessary to keep them active, viable and efficient as we were procuring items for America’s Arsenal. Third, that the restrictive nature of multi-year contracts was good rigor for the Army in guaranteeing that it received the equipment it determined it needed.

Each point mentioned above might be virtuous at face value, but not as compelling as the following counterpoints. As Mr. Tim Mead indicated the needs of the Department of Defense are so broad, across so many technologies, that it would be nearly impossible to preserve all facets of the defense industry we would need to have ready in time of all out war. Some might propose that certain segments be preserved over other segments based on the criticality they provide to a segment of the military. The problem with this approach would be the objectivity of the analysis that determined

its criticality. Further, the global economy cannot resist the forces of the market and the fact that it is less important as to where something was built as long its quality can be verified and proven to meet performance specifications. Many of the components that are in our electronics, appliances, cars, etc, may have a very different place of origin than we would have thought. We also could probably care less as long as it works when we need it. The world is so much more connected by technology and trade that it is unrealistic to think that it is necessary to have all of these industries preserved within our borders in case of war. In addition, the assertion of many economists and world leaders that countries that have established trade relationship are less likely to go to war rings true. Specially, capitalism creates the conditions that make war unappealing while at the same time creating a venue for competition amongst nations where minor conflicts can be contained without resorting to the use of military force.²⁹

If we could maintain all of these industries at a reasonable cost, it might be more important to do so. The problem is that cost to accomplish this would be paid from the same funds required to train, equip and field the Army. Funding to preserve idle defense companies with critical technologies would require decreases in funding for existing personnel, operations and support and investments in the new equipment required.

In addition, while government involvement is important, time has proven that the forces of the market place do the most to advance technology. Look no farther than cell phones, televisions, and computer processors as a small part of the advancements that are driven in the civilian sector. If these technologies were solely in the military domain and kept for our own uses, what size would a cell phone be now?

The military has been able to take advantage of technological advancements in the civilian market that have occurred with products initially developed for military use. The Global Positioning System (GPS) which was developed for the military to provide precise location, speed and time requirements in military applications has undergone great changes. GPS receivers have gotten smaller and smaller over time as the civilian market place has refined the design to better fit civilian uses in areas not necessary for the military. The GPS network is a universal utility that touches nearly all aspects of the lives of people not only in the United States but around the globe. When you turn on your cell phone it uses GPS time to synchronize your cell call with your provider. The accuracy increases for position has saved farmers around the world billions of dollars by increasing the efficiency of farm planting, harvesting, while at the same time reducing the use of pesticides.

In addition, cutting edge technologies experiencing the short cycle times described by Mr. Mead of Defense Acquisition University have short lives between monikers of “newest and best” and “outdated and obsolete.” The nation’s defenses might actually suffer without the improvements that are possible via the forces of the economy. There are many examples that would confirm this assessment.

It would be difficult to select a segment of the defense industry for preservation if asked. However, the most important segment to preserve is heavy manufacturing, the type necessary to build heavy armored vehicles like the current Abrams Tank and the Bradley Fighting Vehicle. The skilled workforce, tooling and expertise in this segment is critical and worthy of consideration for support. One might argue that armored vehicles could be purchased abroad from countries possessing this type of manufacturing.

However, if vehicles are needed for a major war, the capacity of the foreign country may not be sufficient to meet their own requirements as well as those of the United States. Also, there is a window of opportunity to do this now with little impact to the other aspects to the industrial base. Specifically, a robust vehicle refurbishment program to repair and refurbish battle damaged tanks and armored personnel carriers from Operations Enduring and Iraqi Freedom would keep this segment near capacity for several years. While the work would not be building new equipment, it would keep the workforce employed maintaining the expertise. Additionally, who could argue the need to rebuilding the vehicles given the amount of use in the various wars.

Finally, it is clear that it is more important for the Army to maintain its flexibility to fund its requirements over the needs of the defense industry. It would be difficult to support an argument for a steady production line in Detroit for GDLS when soldiers need protection from Improvised Explosive Devices in Iraq now. No rational argument could be made for that position. If the Army leadership needs to turn to these investment accounts at a time when it is critical and there is nowhere else to go, then take the money.

In closing, it is important to understand that the cyclic forces of the economy affect the defense sectors as readily as other segments of the economy. The defense segment, though critical to the defense of the nation, cannot and should not be protected from the forces of the marketplace. Although there are efficiencies to be gained by mandating the use of multiyear contracts, there are also regrets. We should remember the wisdom of our forefathers who instilled in our Constitution and our national psyche the distrust of large standing armies that did not have the approval of

Congress. Finally, giving the Army the flexibility to move its funding around as it deems necessary might be more important than a steady production line. Our system, though quirky, can be improved within the existing framework to be better.

Recommendations

There are a couple of adjustments that could make this process less cumbersome for the Army and for industry. First, there should be an annual appropriation for the Army in the form of contingency operations funding. This money could be funded using similar controls as placed on Research, Development, Test and Evaluation money in that it would expire four years after the fiscal year of appropriation. The RDTE funding source idea for other types of activities whether it is procurement, military construction, operations and support, is not a new idea. This approach has been used for the Missile Defense Agency, in the sums of several billions of dollars each year, as they have put together the nation's defense against ballistic missiles. A similar approach could be used by the Army so that the funding could be used for whatever was needed in time of emergency. This pot of money could be used to pay for urgent requirements, unexpected when both the Program Objective Memorandum and the President's Budget were drafted. The money could be either appropriated as a separate program element to the Army, or funded via a tax to the Army's budget. Having this source of funds would allow the Army leadership to have a funding source, other than reprogramming from the investment accounts or supplemental funding requests. The benefit to the defense industry would be that the account would be the first line of defense prior to tinkering with existing DoD contracts.

The second recommendation is for greater rigor to be used by all levels of leadership within the Army and the Department of Defense when programs are looked at to be bill payers for an urgent unfunded requirement. The Army needs to break the habit of using its investment accounts like a home equity line of credit or their local automated teller machine. When these programs are decremented, every effort should be made to reallocate the funding removed in the next budget year. No one doubts that the army needs the flexibility to move money around for urgent reasons. Adding rigor to the program will ensure that there is trust between those in the Pentagon and the leadership running the decremented Army programs.

Endnotes

¹ The International Institute for Strategic Studies, *The Military Balance 1988-1989* (London, UK: The International Institute for Strategic Studies): 18.

² Pierre A. Chao, Senior Associate with the Center for Strategic and International Studies, "Structure and Dynamics of the Defense Industry," lecture, Defense Acquisition University, Fort Belvoir, VA, October 3, 2008.

³ The International Institute for Strategic Studies, *The Military Balance 2007*, (London, UK: The International Institute for Strategic Studies): 29.

⁴ Chao, "Structure and Dynamics of the Defense Industry."

⁵ *Random House Unabridged Dictionary*, 2nd ed, (New York, NY: Random House), 812.

⁶ Rob Preston, "Smell Opportunity, Not Just Upheaval, In Globalization." *Information Week*, June 2, 2008.

⁷ U.S. Government Accountability Office, *Department of Defense: A Department wide Framework to Identify and Report Gaps in the Defense Supplier Base is Needed*, Report Number 09-05, (Washington, D.C.: US Government Accountability Office, October 7, 2008).

⁸ Jerry w. Cox, "It's Global. Get Used to It." *Aviation Week and Space Technology*, (May 12, 2008):19.

⁹ Carl Munoz, "Industrial Base Consideration not Source Selection Criteria, *Inside the Pentagon*, October 2, 2008.

¹⁰ John T. Bennet, "News Watch Section", *Federal Times*, July 28, 2008, 10.

¹¹ Ibid.

¹² Ibid.

¹³ Mr. Mike Ivy, The Oshkosh Truck Corporation Director of Tactical Vehicle Programs, in Seminar 11 discussions at the U.S. Army War College, 18 February 2009.

¹⁴ Lawrence Farrel, "Manufacturing edge Essential of Defense" *National Defense*, January 1, 2007, 5.

¹⁵ U.S. Department of Labor, *Extended Mass Layoffs in the Second Quarter of 2008*, (Washington D.C.: U.S. Department of Labor, Bureau of Labor Statistics, August 18, 2008)

¹⁶ Stan Steenrod, Office of the HQDA Army G-8, interview by author, The Pentagon, Arlington, Virginia, November 6, 2008.

¹⁷ Ibid.

¹⁸ Tim Mead, Faculty Member at the Defense Acquisition University, interview by author, Defense Acquisition University, Fort Belvoir, Virginia, November 6, 2008.

¹⁹ Ibid.

²⁰ Ibid.

²¹ Colonel Harry Greene, Director of Materiel, HQDA Army G-8, interview by author, The Pentagon, Arlington, Virginia, November 6, 2008

²² U.S. Constitution, Art.1, Sec. 8.

²³ The Library of Congress "*About the Federalist Papers*", THOMAS, http://thomas.loc.gov/home/histdox/abt_fedpapers.html (accessed December 26, 2008).

²⁴ Steenrod, interview.

²⁵ Greene, interview.

²⁶ Ibid.

²⁷ Tom Mullins, Resource Integration Manager, Assistant Secretary of the Army, Acquisition, Logistics, and Technology, SAALT, interview by author, The Pentagon, Arlington, Virginia, November 6, 2008.

²⁸ Ibid.

²⁹ Erik Gartzke, "Economic Freedom and Peace," in *Economic Freedom of the World 2005 Annual Report*, ed. James Gwartney, Robert Lawson and Sara John (Vancouver: The Fraser Institute, 2005), 29.