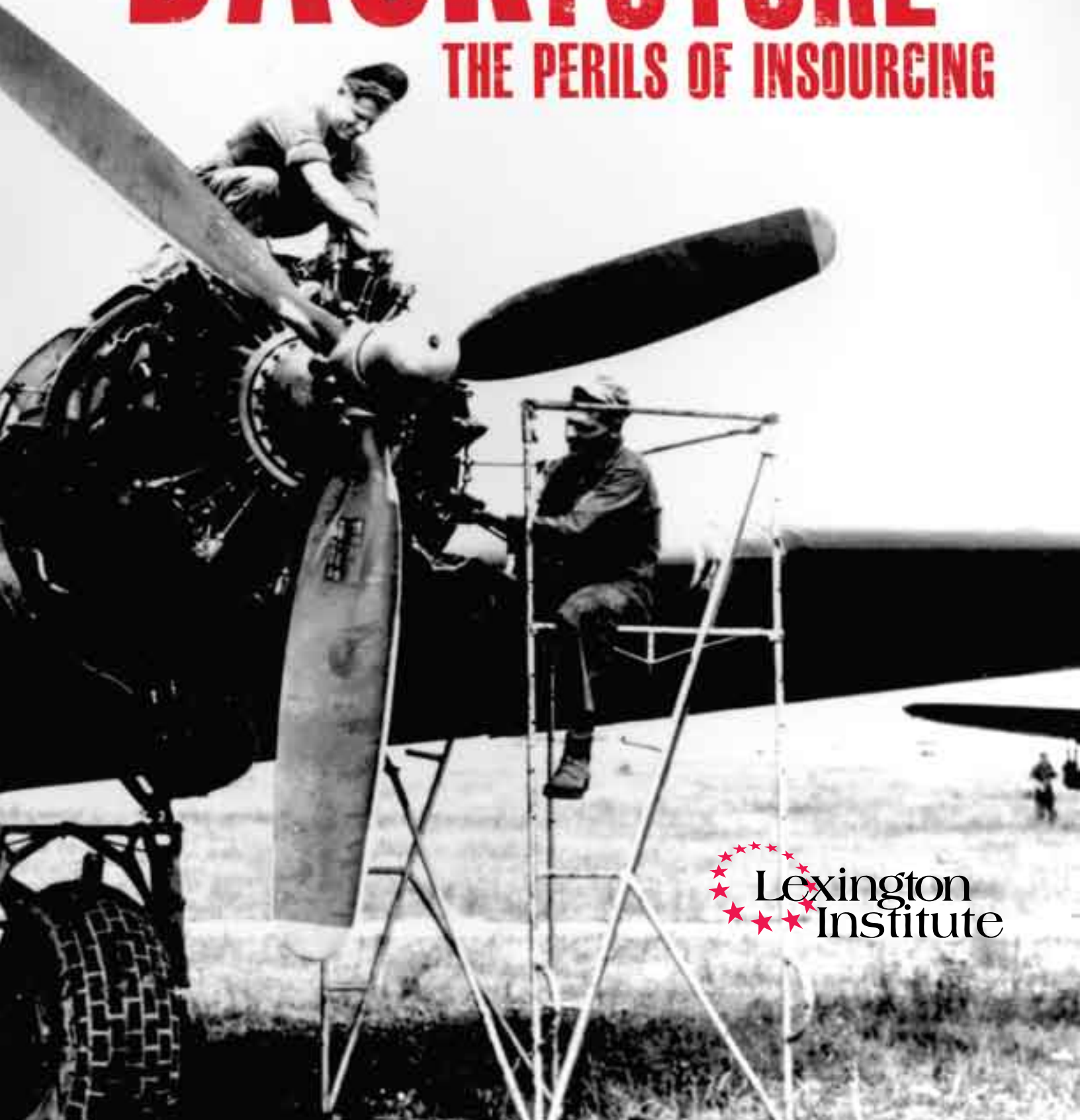


# BACK TO THE FUTURE

THE PERILS OF INSOURCING



 Lexington  
Institute

## EXECUTIVE SUMMARY

Faced with the need to control the costs and improve the performance of its logistics and sustainment system, the Department of Defense has pursued a deliberate strategy of integrating better the private and public, or organic, defense industrial bases. The centerpiece of this strategy is the creation of public-private partnerships (PPPs) and the implementation of an approach to logistics and sustainment known as performance-based logistics (PBL). By capitalizing on the comparative advantages of the public and private halves of the defense industrial base, the defense department can support the warfighter while reducing the costs for maintenance and sustainment, and improving the availability of weapons systems they need.

The record of PPPs, in general, and PBL, in particular, is very good. Government, industry and academic studies all have reached the same conclusion: contracts have led to improvements in availability in the neighborhood of 20-40 percent while typically reducing costs by 15-20 percent. Improving availability creates an additional cost savings by reducing the total number of systems required in order to meet the warfighter's needs. In addition, by streamlining supply chains and improving inventory control, PPPs have achieved hundreds of millions of dollars in cost avoidance. The private sector has invested many millions in the organic industrial base, provided invaluable training for government workers and transferred critical intellectual property. The integration of the public and private sectors has led to collaborations in the production of new weapons systems such as the Stryker vehicles, and aircraft and vehicle engines.

Despite this record of success there are increasing signs that some in the Department of Defense are seeking to move backwards, bringing more work into the organic industrial base and sidelining the private sector. The basis for these decisions, particularly the business case, does not appear to be adequate; it certainly has not been transparent.

There are clear perils to increased insourcing. First and foremost, despite claims to the contrary, it is not clear that the military services will be able to save money by insourcing, particularly over the long term. Insourcing potentially could carry a very high price tag, most obviously in the increased costs of goods and services acquired in the maintenance and sustainment process. There is also the danger of reducing the availability of vital weapons systems with consequent risks to the warfighters. Moreover, arguments for insourcing often are based on erroneous or unsubstantiated conclusions about the relative advantages and costs of work performed by the private and public sectors. Then there is the risk that by insourcing, the defense department will diminish the very same private industrial base on which it must rely for the next generation of capabilities.

The Department of Defense needs to rein in the military's rush to insource. In the midst of two wars, the consequences of an error in judgment is simply too great. They need to proceed slowly, first establishing a department-wide set of procedures for both insourcing and PPP decisions. Central to such an effort is the development of a standardized, transparent and comprehensive analytic approach to defining the business case for or against insourcing. This approach needs to include consideration of the life cycle cost implications of alternative approaches to sustainment. In addition, the military services should make a diligent effort to bring the warfighters into any insourcing decision since they will bear the consequences of any loss of availability or capability. Above all, as the nation is engaged in two wars, everything must be done to ensure that support to the warfighters is not diminished.

This report was written by Dr. Daniel Goure of the Lexington Institute.

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# INTRODUCTION

For more than a decade the U.S. Department of Defense (DoD) has pursued a variety of efforts and experiments to reduce the costs of logistics and sustainment while simultaneously increasing the efficiency and effectiveness of these systems. After much effort, the conclusion that DoD reached was that partnerships between the public or organic defense industrial base and the private sector offered the best approach to supporting the warfighter while restraining or even reducing costs. These public-private partnerships (PPPs) can take a number of forms. In some, the organic depot acts as a subcontractor to a private company; in other instances, these positions are reversed. There are also cases in which a military service procurement office serves as the integrator of work performed by both public and private entities each under separate contracts.

After much study and experimentation, the defense department came to the conclusion that wherever feasible, PPPs should follow an approach known as performance-based logistics (PBL). PBL is an approach to maintenance and support that plans and delivers an integrated, affordable, performance package designed to optimize system readiness and meet performance goals for a weapon system through long-term support arrangements (competitively based) with clear lines of authority and responsibility. PBL seeks to achieve specified outcomes, such as the availability of functioning weapons systems, through long-term support arrangements rather than the purchase of individual elements of support such as parts, repairs and engineering services which is termed transactional logistics.

Now, just when PPP and PBL have proven themselves and when the Department of Defense desperately needs innovative ways to contain costs while improving the performance of its maintenance and logistics system, some within the department want to go backwards, back to the government-run approach in which most work was performed in an inefficient organic base and the relationship with the private sector was based on the transactional sale of parts and services. The excuses given for backpedaling are many: it is DoD policy (which is not true), the need to protect the role of depots with respect to critical wartime logistics capabilities (so-called core work), the requirement to maintain a 50-50 split on total work between the public and private sectors, the need for better government oversight, the desire for more competition, the lengthiness of PPP and PBL arrangements, and the requirement that the government do more work if it must serve as the product support manager on its maintenance and sustainment activities. These alleged reasons for backpedaling are in fact all reasons to do more PBL/ PPPs because these innovative strategies are the best means to foster competition, reduce costs, balance work between public and private sectors, and provide effective government oversight of weapon system performance.



Stryker combat vehicle repair at Anniston Army Depot.

Back to the future won't work. The Department of Defense is insourcing at its own peril or, more accurately, at peril to the warfighter. The reason the defense department turned to PPPs and PBL is that the old system -- in which the government ran everything and the maintenance and sustainment system was fragmented -- had been an abject failure. The government goes against the large body of evidence of the successes of PPPs and PBL in turning back to insourcing. The decisions to insource are being made despite the lack of adequate or possibly even fair business case analyses, in the absence of a comprehensive plan for the future of both the organic and private industrial bases, without adequate consideration of the long-term implications, with no Congressional oversight and without input from the user community who would bear the consequences of any diminution in weapons system availability or reliability.

The Department of Defense needs to slow down in its rush to insource maintenance and sustainment work. It needs a more careful consideration of the case for insourcing. DoD needs to more carefully consider the roles for both the public and private sectors in maintenance and sustainment before radically altering their relationship. Maintenance and sustainment organizations need to take into consideration the long-term needs of the warfighter before making decisions based on possibly erroneous estimates of near-term cost savings. Finally, while there have been challenges associated with PPPs and PBL, the answer is not to go backwards to a system that had demonstrably failed, but rather to improve the function of the current one.

## THE SUCCESS OF PUBLIC-PRIVATE PARTNERSHIPS

Enough evidence exists to say that public-private partnerships are a good way to integrate the organic and private defense industrial bases. There are savings to be had, as well as enhanced performance. Particularly important is the ability of innovative partnering solutions to reduce the amount of work in progress, lower the burden of oversized inventories and slow supply chains, and increase the availability of repaired, refurbished and reset weapons systems.

Increased availability is perhaps the most important metric in judging the utility of any maintenance and sustainment activity. Availability is the number of weapons systems out of the total fleet that is actually in the hands of the warfighters. The larger the pool of available weapons systems, the more effective the force. A weapons system in a maintenance facility for repair or overhaul is not available to do the job for which it was designed. This can result not only in greater risk to the warfighters but in a reduction in their ability to achieve assigned missions. Moreover, increased availability can translate into lower procurement costs since fewer weapons systems need to be acquired in order to insure that the desired number is available to the warfighter. In effect, increased availability is a way of avoiding costs to the Department of Defense while improving its effectiveness. As a senior defense official pointed out:

... Perhaps we need another term, but the reality is that the sustainment process is about performance, and performance measured by availability of platforms and weapons. The regular and ongoing negotiation between industry and government in shaping performance-based metrics is at the heart of what has improved sustainment through PBL. It is not always easy to show cost savings; but it is not difficult to show readiness, reliability, and cycle time improvements.<sup>1</sup>

Partnering with private industry can bring additional benefits to the organic industrial base beyond increased workload and access to technology and know-how. Public-private partnerships have been instrumental in promoting enhanced workplace efficiencies at the depots through their adoption of LEAN and Six Sigma practices. Performance-based logistics offers another advantage over traditional contracting approaches. It reduces the demand for government



personnel -- military and DoD civilians -- in the logistics system. PBL provides a lower cost alternative to the maintenance of a large government workforce through the use of private sector methods and fewer people. In an era when some question the nation’s ability to maintain an adequately large combat capability, reducing the number of people required for the military’s logistics train through the use of PBL makes great sense.

There is now sufficient evidence on which to make some important judgments regarding the value of public-private partnering. One senior defense logistics official identified five major programs (see Table 1) that had achieved significant cost benefits as a result of the application of PBL.<sup>2</sup>

Table 1  
**Examples of Performance-Based Logistics Cost Benefits**

Program	Cost Benefit (\$Million)
C-17	\$477
F/A-18	\$688
AH-64	\$100
TOW-ITAS	\$350
Sentinel AN/64	\$302

Source: Defense AT&L, January-February 2009, p.11.

According to one defense department report, through fiscal year 2006 public-private partnerships at the depot level created or sustained nearly 5,000 government jobs, provided \$3.7 billion of total revenue to the depots, brought some \$50 million of private investments in these government facilities and “improved product support, performance and business practices; updated technology and cost avoidance; and increased facility utilization.”<sup>3</sup>

The Aerospace Industries Association reviewed some 220 ongoing performance-based agreements (PBAs). It concluded that these efforts “have demonstrated material availability above 95 percent and commercial, world-class response times of 2-4 days (versus a DoD average of 16 days).” Moreover, for a selected subset of 30 programs, the association was able to document an average cost reduction of 11 percent.<sup>4</sup>

No less a source than the *DoD Weapons System Acquisition Reform: Product Support Assessment* concluded that, “performance-based (outcome-based) product support strategies, particularly when coupled with government-industry partnering approaches, have consistently delivered improved materiel readiness across numerous weapon system applications over the past decade.”<sup>5</sup> Elsewhere in the same study, it was noted that partnering strategies produced higher sustained readiness improvements than strategies that emphasized either contractor or organic-only solutions.<sup>6</sup>

Other sources appear to come to the same conclusion. The 2008 *United States Air Force Depot Maintenance Strategic Plan* declared that the “Air Force continues to recognize the need to maintain robust private and public sector maintenance capabilities.” In particular, “utilization of the same facilities and equipment to produce new systems for depot level maintenance and repair should result in reduced total life cycle costs.”<sup>7</sup>

## *The Navy and Partnering*

Each of the military services has taken a different approach to PPPs and to the implementation of PBL. The U.S. Navy, through its primary logistics and sustainment element, the Naval Inventory Control Point (NAVICP), has moved aggressively to adopt PBL.

Approximately 25 percent of all maintenance and sustainment activities are under some form of performance-based agreement. Among the reasons the Navy cites for its success with PBL are:

- The use of long-term contracts;
- A focus on availability, reliability, obsolescence and cost;
- The establishment of specific performance metrics;
- A willingness to incentivize contractor investments; and
- Flexibility in the use of resources available through the Navy's Working Capital Fund.<sup>8</sup>



The Navy's F/A-18 E/F is supported by a system-level performance-based agreement.

There are several reasons why the Navy has had such success with PPPs. First, is its willingness to bring all the stakeholders to the table and to manage the effort holistically. Second, the Navy's ability to put into place contracts of sufficient duration so as to reap the benefits of improvements in supply chain management and component reengineering. Third, because it recognizes the private sector's profit motive and provides adequate incentives for improvements in performance.

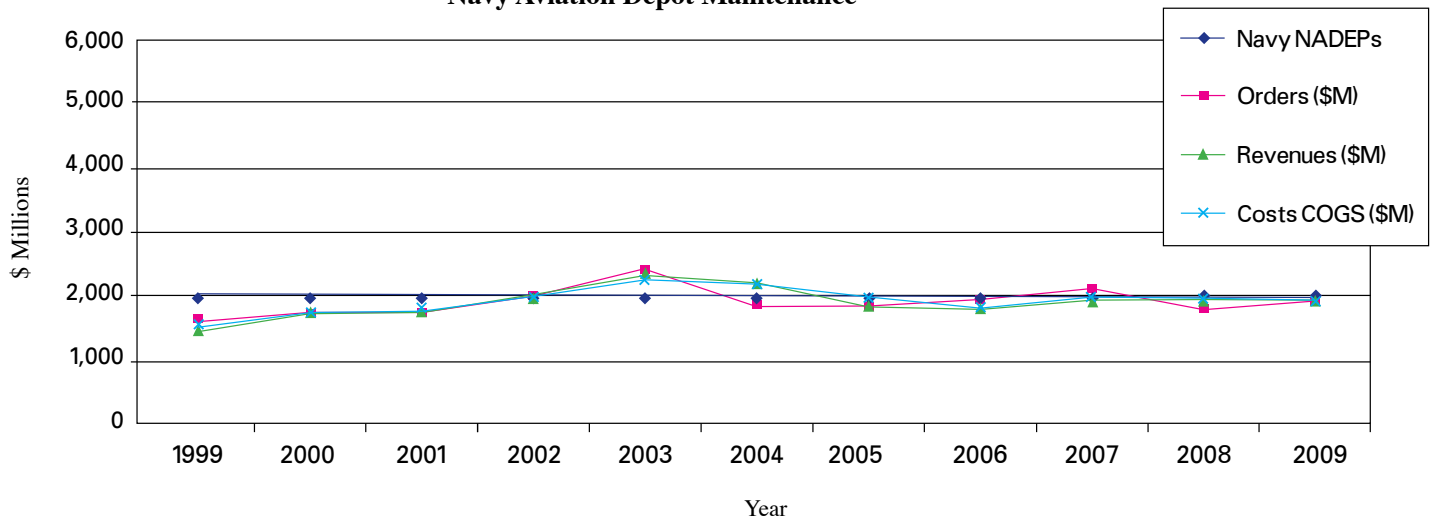
A study of PBL by the Center for Naval Analysis noted that NAVICP believes that performance-based logistics provides a particularly useful avenue for dealing with issues of obsolescence.

NAVICP strongly believes that performance-based logistics contracts provide insurance against obsolescence issues, one of their greatest problems. Obsolescence is a real issue, but one that is not measurable in any current empirical way.

Nevertheless, NAVICP may think highly of PBL contracts because contractors are willing, for profit, to fix the reliability problems of legacy systems.<sup>9</sup>

A major success story is the Navy’s F/A-18E/F Integrated Readiness Support Teaming (FIRST) program. This is one of the most comprehensive PBAs covering over 1,100 repairable items and 10,000 consumable items while also providing for engineering work to support obsolescence and configuration management for the aircraft. Included in the PBA was a guaranteed response-time metric. Based on the business case analysis, the cost savings to the government will total some \$688 million over the life of the program. The mission capable rate for the F/A-18E/F improved from 57 percent in 2001 to 73 percent in 2007 and the program increased aircraft availability from 67 percent to 85 percent.<sup>10</sup>

Table 2  
Navy Aviation Depot Maintenance\*



\*Data extracted from the Working Capital Fund Attachment to the Air Force and Navy submissions to the President’s Budget.

The Navy has been the most progressive in bringing all responsible parties under the F/A-18E/F umbrella and in integrating the different funding streams available for this program. As a result, the best use can be made of resources available for parts, technical orders, sustainment engineering and maintenance.

NAVICP is responsible for a number of very successful system and subsystem-level PBAs. For example, Honeywell has been under contract to repair and maintain auxiliary power units for a variety of Navy aircraft since 2000. Availability is now 95 percent. Back orders have been eliminated and wait time reduced from 35 days to 5. Under its PBA, Honeywell is responsible for addressing issues of obsolescence with power unit components. Similarly, Raytheon established a PBA with the Fleet Readiness Center Southwest to support the H-60 Forward Looking Infrared system that has achieved a consistent 90 percent or better availability level.

In October 2009, the Navy renewed its “power by the hour” contract with Rolls Royce for support of the engines on the T-45 trainer. The contract mirrors commercial power by the hour agreements which establish a fixed price per engine flight hour. The initial five year contract is estimated to have saved the Navy \$65 million.

Overall, the Navy continues to see great value in the PBL process. According to the former Commander, Naval Air Systems Command, “The success of Performance Based Logistics (PBL) has allowed the Naval Aviation Enterprise (NAE) to improve support to the warfighter and achieve weapon system readiness at lower life cycle costs.”<sup>11</sup>

## *The Army and Partnering*

Like the Navy, the U.S. Army sees partnering as a win-win proposition. The Army recognizes not only the importance of saving money, but equally the value of weapons system availability and the speed at which maintenance and repair activities can be carried out.

One notable success is the PBL contract with Lockheed Martin to support the High Mobility Artillery Rocket System (HIMARS). The statistics speak for themselves: a system readiness rate in excess of 99 percent, versus a goal of 92 percent, a mission capable turnaround time averaging just one hour for HIMARS systems based outside of the continental United States, versus a goal of 96 hours, and a repair turnaround time in the field averaging two days, versus a goal of five days. These performance levels were achieved at no additional cost to the government. Moreover, they enable the government to save money by reducing the number of systems it must keep in reserve to replace those that are out of service.

General Dynamics has provided support to the Army through a PBA for the Tactical Airspace Integration System (TAIS). This is a total life cycle support program that provides comprehensive configuration management and system tracking capability to ensure that contracted metrics and system health can be monitored on a near real time basis. The TAIS contract has achieved 90 percent availability. As a result, this program was a 2008 recipient of the Secretary of Defense's PBL award.



General Dynamics provides support for maintenance, repair and overhaul of M1 tanks at Anniston Army Depot.



According to the Army, the PBA to support the improved target acquisition system (ITAS) for the TOW missile has provided better than 90 percent availability over the past seven years with \$350 million in cost avoidance. The Army is relying on a PBA with AAI Corporation to provide affordable maintenance for its Shadow unmanned aerial vehicle. This effort involves a partnership with both Tobyhanna and Letterkenny Army Depots. Work is done through NAVICP at both Forward Repair Centers Southeast and Southwest. The contract requires 100 percent availability at a firm fixed price. The metric is cost savings year over year and supportability costs as a percentage of total procurement. Moreover, the contract requires that supportability cost percentages go down year over year.<sup>12</sup>

An example of the value in aggressively pursuing PPPs is provided by the Anniston Army Depot. Beginning in 1993, Anniston partnered with General Dynamics to provide repair and maintenance of the M1 tank. This effort was expanded to encompass a new program called the Abrams Integrated Maintenance XXI (AIM XXI), which capitalized on the manufacturing and technical insertion core capabilities of General Dynamics and the overhaul and repair capability of Anniston Army Depot. Since 1993, Anniston Army Depot has participated in 73 partnerships of which 40 are active today including those with General Dynamics, BAE Systems, Honeywell, Raytheon, and the Research Triangle Institute International.

### *The Air Force and Partnering*

The U.S. Air Force appears to be the military service that is moving most aggressively back to the future -- despite specific evidence of success with PPPs and PBL. The Air Force has had a very successful long-term PBL relationship with Boeing and Pratt & Whitney to support the C-17 strategic airlifter. This is a collaborative arrangement between Boeing and the Air Force's Warner Robins Air Logistics Center. The original C-17 Global Sustainment Partnership (GSP) agreement was a PBL contract in which Boeing and the Air Force together manage C-17 sustainment activities, with Boeing in the role of lead integrator and therefore responsible for performance outcomes. The C-17 GSP provided the Air Force with a high mission-capable rate while achieving significant cost avoidance over the life of the contract.

The Air Force's PBA with Lockheed Martin to support the F-22 is reported to have achieved a 40 percent reduction in costs with aircraft availability improved by nearly 20 percent.<sup>13</sup> The F-22 Raptor sustainment program was awarded the DoD 2008 PBL System Level Award. In partnership with the Air Logistics Centers, the F-22 program increased the mean time between maintenance for the F-22 by 69 percent fleet wide -- which means jets need fewer repairs while achieving a 15 percent improved mission rate and a 20 percent reduction in repair time which translates into savings of hundreds of millions of dollars.

Another example of a successful public-private partnership is the contract with Northrop Grumman to support the E-8 Joint Stars. In 2007 the Air Force analyzed the business case for its PBA and concluded that it generated savings of \$38 million.

There is the example of the performance-based agreement between the Defense Supply Center-Richmond and General Electric Aircraft Engines for the sustainment of the F404 engine. This program has achieved availability levels of around 92 percent while reducing inventory costs (and thereby costs to the Air Force) of roughly 21 percent.

Investments by the private sector in the organic industrial base must be factored into a credible assessment of costs and benefits accruing to PPPs. In August 2004, as part of a ten-year performance-based agreement, Pratt & Whitney opened a new joint maintenance facility for the overhaul of F119 engines at the Oklahoma City Air Logistics Center. Pratt & Whitney is responsible for the engine/module repair and overhaul process, from scheduling to providing materials. Air Force mechanics perform overhaul, cleaning, inspection services and repair activities. This is in addition to the construction and staffing of an advanced spray coatings facility to support the F100 engine.



C-17 maintenance at Warner Robins Air Logistics Center.  
The Air Force is insourcing management of C-17 maintenance, repair and overhaul.

Unlike the Navy, the Air Force has never fully embraced the idea of PPPs nor has it sought ways of empowering its program managers to aggressively implement PBL. It still tends to segregate different pots of money, to not plan its maintenance and sustainment efforts from a long-term perspective and even to take an adversarial position vis-à-vis the private contractors.

### *Defense Agencies and Partnering*

The defense agencies have been advocates for public-private partnerships, in general, and PBL, specifically. The Defense Logistics Agency has applied the principles of PBL to the management of its supply chains. According to the Aerospace Industries Association, these efforts have resulted in reduced inventory and improved customer delivery times. By placing the delivery of naval aviation tires under a performance-based agreement, the Defense Logistics Agency was able to achieve 100 percent availability, delivery to Iraq in 55 hours, a 75 percent reduction in inventory, and \$46 million in savings.<sup>14</sup>

According to Vice Admiral Keith Lippert (Ret.), a managing director at Accenture, former director of the Defense Logistics Agency and former commander of the Navy Supply Systems Command, the vast majority of performance-based agreements have succeeded and those that failed to make their goals lacked a “business case analysis which was done properly and thoroughly.” That situation could create a disparity between “what could be achieved versus what the business case said could be accomplished.”<sup>15</sup>

# THE DANGER OF REVERSING COURSE

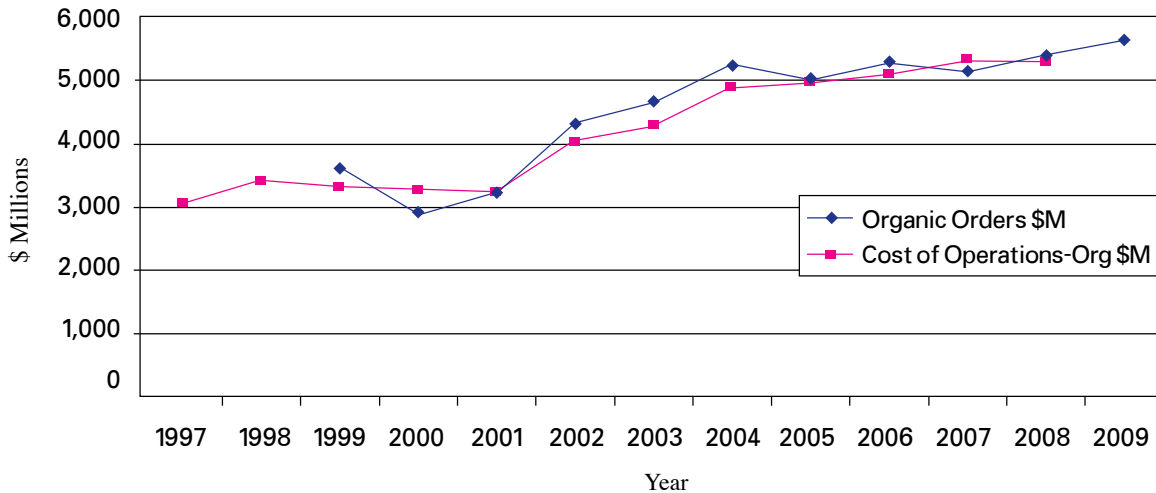
Despite a proven record of success in reducing costs, enhancing performance and improving availability to the warfighter, the Obama Administration seems bent on reversing course and insourcing many activities being performed under public-private partnerships. The ostensible reason for this decision is the desire to save money. There have also been assertions that there have been partnership programs that have resulted in “unsatisfactory cost growth” and that these cases would see cost savings if their management were to be brought back under government control.

The Air Force is making the most aggressive moves towards insourcing maintenance and sustainment work. It has been reported that recent Air Force studies of some of its PPP arrangements have raised concerns that it is overpaying for its contractor support. Secretary of the Air Force Michael Donley has challenged the assertion that PPP saved his service money and argued for insourcing some heretofore private contractor activities.

We have some cases where we have come back after 15 or 20 years and there has been cost growth in some areas where we have concluded from our business case analysis we could actually do the work in-house. We think we could be working harder to contain costs. I think this is something that deserves closer attention on our part.<sup>16</sup>

The Air Force recently decided to take over responsibility for program integration on the C-17 program. In addition, the Air Force has decided to reduce the role of Boeing in managing the maintenance processes for the aircraft and to bring more work back into the depot system. Air Force officials assert that their analysis indicates a savings of some \$12 billion over 30 years or \$250 million annually. It has also made the decision to end the PBL with Lockheed Martin to support the F-22 fleet. These decisions will also affect Pratt & Whitney, the engine maker for both aircraft. The Air Force has also announced that it will take on this larger management role for logistics on new systems such as the KC-X tanker and F-35 fighter.

Table 3  
Air Force Organic Depot Maintenance Cost Growth\*



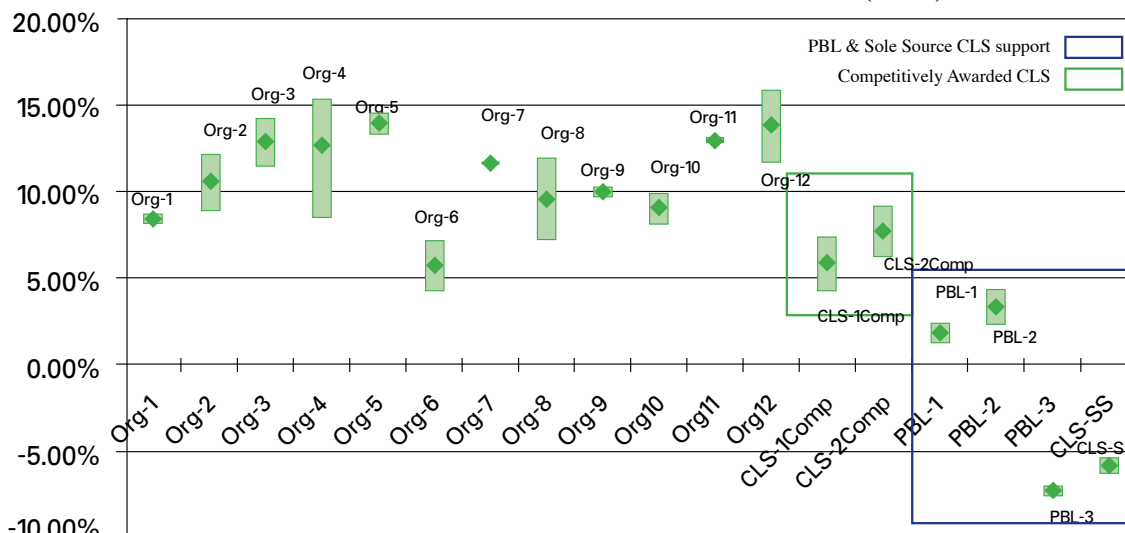
\*Data extracted from the Working Capital Fund Attachment to the Air Force and Navy submissions to the President's Budget.

The new push to bring back work into the federal government reflects a belief that insourced work is inherently cheaper than that performed by private contractors. According to a number of reports, the 2011 DoD budget assumes a 30 to 40 percent savings for every position that is insourced.<sup>17</sup> Given the fact that the average unburdened cost for government employees is higher than that for private sector workers, this number is hardly credible. A study of Air Force organic depot maintenance cost growth found that between 1997 and 2009 the work load at the Air Force depots declined by 6 percent but the costs of maintenance had risen by 94 percent. Since 2000 the composite hourly rate for Air Force depot maintenance had increased 125 percent, while that of the Navy grew by only 25 percent.<sup>18</sup> In view of this data it is difficult to see how insourcing will produce the cost savings envisioned by the Air Force.

There is no evidence that PBL or Contractor Logistics Support (CLS) arrangements are excessively costly. A recent RAND Corporation study of Air Force CLS contracts "... found no evidence that the costs of ongoing and long-term CLS contracts are increasing at a faster rate than comparable organically supported programs. Rather, the increase in CLS spending is due mostly to decisions to support most new aircraft systems with CLS, while the legacy systems that they replace tend to be supported organically."<sup>19</sup> Another study of Air Force sustainment cost growth concluded that the average annual cost growth for aircraft programs supported solely from the organic industrial base was greater than that for aircraft programs under either PBL or contractor logistics support agreements.<sup>20</sup>

It is by no means certain that bringing work back inside the depot will reduce costs. In fact, the military depots have demonstrated great difficulty in controlling their own costs. For example, one Government Accountability Office (GAO) report found that the average price for work performed in the Air Force's three Air Logistics Centers almost doubled between 2000 and 2004.<sup>21</sup> Much of this increase was the result of higher material costs, a problem which insourcing not only would not ameliorate but would, instead, exacerbate. Higher labor costs also contributed to the problem. Absent the structured approach to cost management that is characteristic of government contracts involving private industry (including PBAs), there is no reason to believe that the cost to the Department of Defense of insourcing would not be greater than any anticipated savings.

Table 4  
Air Force Wholesale Sustainment Cost Growth (TY\$s)\*



\*Data extracted from the Working Capital Fund Attachment to the Air Force and Navy submissions to the President's Budget.



## US GOVERNMENT STATEMENTS ON INSOURCING

A study of Air Force depot sustainment costs compared a number of programs entirely supported by the organic base versus those which were sustained through either PBL or CLS arrangements. Using official Air Force data, this study demonstrated that the average annual cost growth on PBL and CLS aircraft is lower than that of Air Force aircraft supported by the Air Logistics Centers. This conclusion did not appear sensitive to the relative ages of the systems. As a consequence, the study concluded that:

... the annual cost growth numbers strongly indicate that, over time the contractor sustained aircraft will be less expensive to own than organically supported aircraft. Further these cost growth results were obtained with no formal cost growth metrics being measured and no contractor incentives being applied to contractor control of cost growth. In fact, a number of these contracts are cost plus or have substantial elements that are cost plus. It is likely that well structured incentives for contractor cost reductions over time could yield even greater affordability improvements. It is particularly interesting that CLS and PBL supported systems also demonstrate superior sustainment performance compared to that experienced on organically sustained aircraft. There is no evidence in this data that Air Force programs intended to improve affordability has had any positive impact on depot related costs.<sup>22</sup>

Similarly, in 2007 the F-22 program office contracted with the RAND Corporation to conduct a cost benefit analysis of the planned sustainment PBA. The RAND study concluded that Lockheed Martin was providing excellent support for the program, and evidenced excellent process management. More significantly, the study team noted that it was extremely difficult to establish a true cost and performance comparison of an organic maintenance alternative to a public-private arrangement. In particular, the study pointed out that the government would have to make undetermined levels of investments and add resources to take over the contractually provided services. The lack of data regarding depot costs makes it virtually impossible to know for certain whether insourcing will save money.

The decision to insource should also consider the risk of delay or even failure in transition from a public-private partnership to organic support. For example, the Department of Defense made a decision to attempt to insource maintenance, repair and overhaul for the F100-229 engine in 2002. The relevant depot did not have the necessary skills resulting in a delay in

In-sourcing is the conversion of any currently contracted service/function to DoD civilian or military performance, or a combination thereof. In-sourcing actions include the conversion of those contracted functions that should be considered to be inherently governmental or exempted from private sector; contracted functions that provide personal services (except where specifically authorized by law) or have contract administration problems; and contracted services that can be performed more cost effectively by DoD civilian personnel (including those functions that must be given “special consideration...”).

-- In-sourcing Contracted Services-  
Implementation Guidance  
U.S. Department of Defense, May 28, 2009

As part of this review of our “total workforce,” we are assessing whether the work that is currently contracted out should be brought “in-house.” Several factors drive our consideration of what mix of contractors and government personnel to employ. Cost-effectiveness is one of the most important criteria. But so too is the extent to which contracting introduces operational risk and supports functions that should be performed only by employees with direct responsibility for the public interest. The trend towards contract support over the past two decades has yielded many gains. But we believe it has gone too far in some areas. So during fiscal 2010 and fiscal 2011, we expect to establish 20,000 new civilian positions. In-sourcing is occurring predominantly in the areas of acquisition oversight, logistics support, program management, and cost accounting.

-- Deputy Secretary of Defense, William Lynn  
Speech to the American Federation of  
Government Employees, March 5, 2010

## US GOVERNMENT STATEMENTS ON INSOURCING

Likewise, we are looking for opportunities to find functions and activities where extended contractor support has yielded unsatisfactory cost growth and we are bringing those functions and activities back under direct Air Force management under our “in-sourcing” program.

In fact, we have already initiated in-sourcing actions that replaced out-sourced contracts with 2,500 Air Force civilians, saving approximately \$970 million across the FYDP [Future Years Defense Program]. Additionally, we will in-source another 2,400 full-time positions in 2010, and have more planned in the future.

-- Secretary of the Air Force, Michael Donley  
“The State of the Air Force – 2009” Air Force Association

The NDAA [National Defense Authorization Act] 2008 requires that consideration be given to using DoD Civilian employees to perform new functions and those functions currently performed by contractors. In addition, special consideration to in-sourcing shall be given to:

- Functions that have been performed by DoD Civilians at any time in the last ten years.
- Functions closely associated with the performance of an inherently governmental function.
- Non-competitive contracts.
- Contracts with excessive costs or of inferior quality.

In-sourcing allows the Army to return those functions in-house, either inherently governmental or closely associated with inherently governmental, which have been outsourced. In-sourcing also has the potential to bring significant savings to the Army by encouraging the hiring of civilians, rather than relying on the often more costly alternative of hiring contractors to perform work.

-- 2009 Army Posture Statement

the ability to insource the work until 2012. In the meantime readiness on the system declined.

Jacques Gansler, former Under Secretary of Defense for Acquisition, Technology and Logistics has described the current environment as “a war on contractors.” In a recent interview he took issue with the belief that insourcing work will achieve budgetary savings:

The government is not cheaper; the Congressional Research Center [sic] said so. So have other studies. By contrast, whenever we’ve had competitive sourcing, we get more than a 30 percent cost savings, on average, with higher performance, no matter who wins -- and the government most often wins.<sup>23</sup>

So, while the Air Force claims that its own analyses promise that insourcing will save money, neither the record of existing PPPs and PBL nor analyses of the Air Force depots own costs support this assertion. Moreover, decisions that fragment overall management of programs and disrupt the supply chain fly in the face of decades of experience from both the public and private sectors. If the Air Force’s new approach were the correct one, Wal-Mart would have been a failure.

Thus, it is difficult to accept the claims of some that insourcing will save the government money, particularly over the long term. This is even more true since there have been persistent problems with the adequacy of data on cost elements within the organic base as well as with the methodologies employed in calculating costs and potential savings over time. Some critics of PBL like to point to a GAO report that claimed there were difficulties in documenting cost savings from PBL due largely to problems with data. However, it must be noted that the same data problems exist on the government’s side. The government is notoriously bad at tracking its own costs. Ironically, so is the GAO. As a recent article on insourcing pointed out:

... one should note that the GAO does not audit the depot system, which does 50% or more of the U.S. logistics and sustainment efforts. Indeed, without auditing the depots, it is impossible to claim that there are cost savings in the offing by pushing more government work to the depots instead of having the private sector involved through a PBL or similar effort.<sup>24</sup>

Thus, when we consider recent Air Force decisions to reject PPPs in favor of increased insourcing, it is difficult to believe that the depots can perform the same work with less manpower

or that the true cost of government employees is significantly less than that of the combined public-private partnership. Moreover, Air Force Materiel Command has announced a major increase in government personnel, most of whom will not be in acquisition and contracting. It is difficult to understand how the Air Force plans to prevent its costs at the depots from rising when it must cover thousands of additional government personnel. Other sources of increased costs could include the requirement that the depot manage more of the supply chain and the inventory of parts. In addition, it is doubtful that the analysis performed prior to these decisions considered the impact of insourcing on the cost of upgrades to the aircraft or its engines.

With respect to the other arguments for insourcing, they can be addressed relatively easily. The argument that it is now defense department policy to insource wherever possible is a misreading of the intention and guidance by the Office of the Secretary of Defense. The department is seeking to rebalance its management cadre with particular attention to engineering, systems integration and contracting. This policy does not direct DoD components to insource maintenance and sustainment work. With respect to the requirement that half of all maintenance work be done by the organic base (the so-called 50-50 rule), there is plenty of evidence that PPPs support this objective by bringing work into the organic base. On the subject of the requirement that the organic depot have a “core” capability so as to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements, existing PPPs and PBL agreements have been successfully managed. However, it must be noted that a recent GAO report severely criticized DoD for its inability to even define core for many weapons systems.<sup>25</sup> The new requirement that the government act as the product support integrator on its programs does not require that government entities act in the role of a general contractor, managing a



F-22 maintenance at Andersen Air Force Base, Guam.  
The Air Force hopes to save money by insourcing F-22 maintenance in the future.



disparate and disconnected set of subcontractors and independent activities. It only requires that the government exercise effective oversight and control. In any number of PPPs and PBL contracts from the F/A-18E/F FIRST to the General Dynamics-Anniston Army Depot M1 tank upgrade partnership, the government successfully exercises overall control and direction without seeking to manage the various activities under the management of the prime contractor.

There is one concern often expressed by government representatives regarding PBL that does have some merit. This is the reduction in flexibility in how the government spends money due to the relatively long timelines of most PBL agreements. Historically, readiness accounts were left highly flexible allowing DoD to tap them to make up for acquisition challenges. With PBL the funds normally available to “balance” are no longer there. The same is true when the government signs a multiyear procurement. Bluntly put, in both cases, the government gets what it pays for. If readiness is important, the only way to ensure it is to commit to a long-term relationship. In some instances, subsystems can be put under PBL instead of the entire platform, thereby giving additional flexibility but ensuring readiness on critical pieces of a platform. But if the government wishes to choose flexibility over cost savings or readiness then it should do so clearly and with recognition of the consequences. Insourcing for flexibility should not be disguised as a means of saving money, for this is unlikely to happen.

## WHAT SHOULD BE DONE?

The evidence is overwhelming that PPPs work and that they provide benefits to both the public and private defense industrial bases. Whatever temptations there may be to consolidate logistics, sustainment and repair work in the organic base, they need to be resisted. The preponderance of the evidence as well as expert opinion is in favor of PPPs. Instead of going back to the future, the Department of Defense and the military services need to move forward on improving their approach to integrating the public and private sectors.

A number of recent DoD studies have advocated more, rather than less, partnering between the public and private sectors. In 2008 the Defense Science Board conducted a study which proposed an action plan to avert what it saw as a coming crisis in the defense industrial base. One of the recommendations of that study was to transform the DoD logistics system into a modern, world-class, data-centric enterprise.<sup>26</sup>

In addition to making a persuasive case for expanding the role of PPPs in defense logistics and sustainment, the *DoD Weapons System Acquisition Reform: Product Support Assessment* makes a number of very sensible recommendations regarding steps that DoD should take in pursuit of a next-generation industrial integration strategy. The first of these is to support the capture of a broad set of baseline data including types, size, and characteristics of partnering agreements. A second recommendation is to establish policy and training to expand partnering “beyond maintenance,” improve standardization across the military services and promote the establishment of single source repair capabilities. The third is to modify Title 10 to maximize the potential for integration of the public and private industrial bases.<sup>27</sup>

In a similar vein, the Aerospace Industries Association study of U.S. defense modernization proposed five steps that the defense department should take to improve its logistics and sustainment efforts. Realizing these potential savings depends on DoD making greater use of the unique capabilities of the private sector to leverage the entire defense industrial base.

- Incorporate into DoD’s guidance the preference for the use of performance-based partnerships at all levels—component, subsystem and system, to improve availability and reduce support costs;
- Capitalize on commercial supply chains for all defense department commodity/repairable forecasting, ordering, storage and distribution;



- Achieve commercial best practice distribution performance through partnering with industry (commercial infrastructure);
- Competitively source commercially provided theater opening and in-theater logistics support; and
- Convert existing logistics information systems to a commercially managed services model.

By the association’s estimates, implementing these five recommendations could save the Department of Defense between \$25 and \$35 billion a year.<sup>28</sup>

Table 5  
**Potential Annual Defense Department Savings**

Initiative	Potential Annual Savings
Performance Based Partnerships	\$16.0B - \$21.0B
Supply Chain Management	\$2.8B - \$3.7B
Theater Services	\$2.4B - \$3.2B
Mobility Infrastructure	\$1.1B - \$1.5B
Logistics Information Systems	\$1.9B - \$2.5B
	\$24B - \$32B

Source: Aerospace Industries Association, *Accelerating DoD Logistics Modernization*, October 2009, p. 17.

Given the apparent disconnect between the case for expanded PPPs and the current drive for insourcing, what should be done? The most important step is for the Office of the Secretary of Defense to create a standardized, transparent and comprehensive process for conducting business case analyses (BCA). The business case analysis is central to the development of appropriate PBL contracts. It is equally important to any decision to insource depot work. The current process of arriving at BCAs has been characterized as “black magic.” Business case analyses need to include the full range of costs and benefits. Cost avoidance such as by reducing stocks of spare parts or spare components, not just cost savings from different labor rates, needs to be part of the analysis. The Navy’s approach to running BCAs is a good place to start. The Army’s Aviation and Missile Command is working with outside contractors to develop a revised methodology for its BCAs.

Once business case analyses have been developed for a specific program, it would be wise to use them as mechanisms for refining the PBA. Rather than keeping the BCA secret, it should be rebaselined every year over the PBA’s duration. This would allow both the government and contractor to improve their estimation methodologies.

There are a number of other steps that would be important to take:

- **FIRST**, the government needs to go slow. The consequences of dismantling working relationships that have produced dramatic increases in capability to the warfighter should not be undertaken lightly or without review. In fact, they should not be made at all without adequate input from the user community and review of current performance on insourced weapon systems with respect to cost and readiness metrics.
- **SECOND**, the military services must base insourcing decisions on more than the mere prospect of near-term savings. Indeed, the potential for such savings should be scrutinized very carefully. Given the general recognition that business case analyses are difficult to conduct and that there are often disagreements regarding cost elements and the adequacy of the data, decisions to insource should not be made based on a single, closely held analysis.
- **THIRD**, greater Congressional oversight is needed. If insourcing results in reduced availability, then the needs of the warfighter will suffer. Congress should consider enabling legislation to support the development of clear analytic methods and standards for business case analyses much like the positive, welcome legislation enacted in fiscal 2010 regarding the Product Support Manager.
- **FOURTH**, the military services need to get the input and requirements of the user community before proceeding on the path towards insourcing. If the consequence of cost savings by the depot or logistics center is decreased capability on the battlefield, the dollar savings may be less attractive.
- **FIFTH**, insourcing decisions need to consider the health of the private sector as well as that of the organic or public sector. Maintaining a healthy private defense industrial base requires that they have a significant role to play in maintenance and sustainment work.
- **FINALLY**, the Under Secretary of Defense, Acquisition, Technology and Logistics, needs to heed the recommendations of his own *DoD Weapons System Acquisition Reform: Product Support Assessment*, and undertake the necessary steps to improve the analytic and regulatory basis for expanding the use of PPPs and PBL.

Advocates of insourcing must be required to answer one question: why is returning to the past when availability was lower and costs rising the answer? The alternative to PPP/PBL is transactional logistics that emphasizes buying parts, support equipment, and individual elements of support. The Department of Defense has never shown an ability to manage the costs of transactional logistics or of running a lean and effective supply chain.

Insourcing decisions should be made only in the context of a comprehensive strategy that balances the needs of both the public and private sectors. Such a strategy must reflect the full range of factors involved in alternative approaches to maintenance and sustainment work, not merely annual budget impacts. Without a thorough and complete analysis of all the costs involved, the effort at insourcing is likely to harm both the public and private sectors. Even then, insourcing should only be undertaken when a clear and convincing case can be made that it is the superior option. At a time when the U.S. military is engaged in two wars, any actions which could affect the availability of critical weapons systems may place the warfighter at greater risk. This outcome is simply unacceptable.



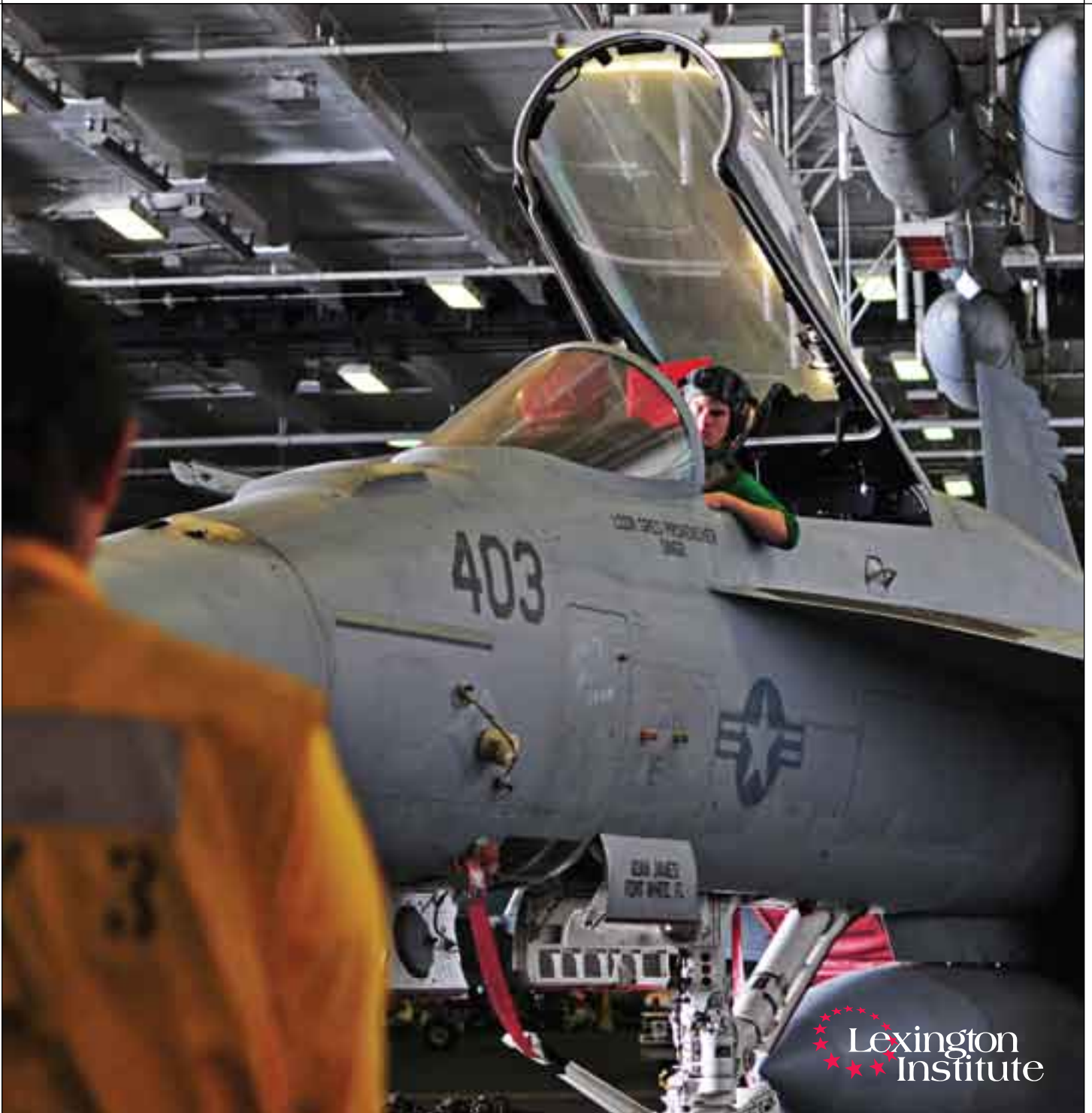
The Army has established a performance-based agreement for maintenance of the Shadow unmanned aerial vehicle.

## END NOTES

- <sup>1</sup> Randy T. Fowler, “Misunderstood Superheroes: Batman and Performance-Based Logistics,” *Defense AT&L*, January-February 2009.
- <sup>2</sup> Randy T. Fowler, *op. cit.*
- <sup>3</sup> Office of the Secretary of Defense, *Public-Private Partnerships for Depot-level Maintenance through the end of Fiscal Year 2006*, Department of Defense, July 2007, pp. II-23 to II-28.
- <sup>4</sup> Aerospace Industries Association, “U.S. Defense Modernization: Today’s Choices for Tomorrow’s Readiness,” August 2008, p. 45.
- <sup>5</sup> U.S. Department of Defense, *DOD Weapons Systems Acquisition Reform: Product Support Assessment*, November 2009, p. 11.
- <sup>6</sup> *Ibid*, p. 32.
- <sup>7</sup> *The United States Air Force Depot Maintenance Strategic Master Plan*, April 2008, p. 7.
- <sup>8</sup> Paul Klevan, “Navy Success with PBL,” Briefing to DoD Maintenance Symposium, October 27, 2008.
- <sup>9</sup> Rebecca L. Kirk and Thomas J. DePalma, *Performance Based Logistics Contracts: A Basic Overview*, CRM D0012881A2, Center for Naval Analyses, November 2005, p. 44.
- <sup>10</sup> PEO TACAIR, *Briefing on F/A 18 E/F FIRST Program*, 2006.
- <sup>11</sup> Vice Admiral W.B. Massenburg, *Performance Based Logistics (PBL) Guidance and Best Practices*, Naval Air Systems Command, Department of the Navy, February 2007.
- <sup>12</sup> Ronnie Chronister, AMCOM: *Performance Based Logistics*, Briefing to SOLE Conference, 2007.
- <sup>13</sup> Peter Buxbaum, “Performance Made to Order,” *Military Logistics Forum*, November/December, 2009.
- <sup>14</sup> Aerospace Industries Association, *Modernizing Defense Logistics*, June 25, 2009, p. 6.
- <sup>15</sup> Peter Buxbaum, *op. cit.*
- <sup>16</sup> Quoted in Amy Butler, “USAF Spending Too Much On Support Contracts, Donley Says,” *Aerospace Daily & Defense Report*, Nov. 3, 2009.
- <sup>17</sup> Stan Soloway, “Insourcing Benefits are Smoke and Mirrors,” *Washington Technology*, October 29, 2009.
- <sup>18</sup> Analysis based on data extracted from the Working Capital Fund Attachment to the Air Force and Navy submissions to the Presidents Budget.
- <sup>19</sup> Michael Boito, Cynthia R. Cook, and John C. Graser, *Contractor Logistics Support in the U.S. Air Force*, MG779, RAND Corporation, 2009, p. xv.
- <sup>20</sup> Analysis based on data extracted from the Working Capital Fund Attachment to the Air Force and Navy submissions to the President’s Budget.
- <sup>21</sup> Government Accountability Office, *Air Force Depot Maintenance: Improved Pricing and Cost Reduction Practices Needed*, GAO 04-498, June 2004.
- <sup>22</sup> Bradley W. Bergmann II and Robert L. Buckley, *Assessment of Successful Performance-Based Logistics Efforts*, Logistics Management Institute, DAC90T1, September 2009.
- <sup>23</sup> The Honorable Jacques Gansler, “Global War on Contractors Must Stop,” *ExecutiveBiz Blog*, January 15, 2010, at <http://www.blog.executivebiz.com/jacques-gansler-global-war-on-contractors-must-stop/7105>.
- <sup>24</sup> “From PBL to U.S. Government Directed Logistics,” *Second Line of Defense*, February 2010, at <http://www.sldinfo.com>.
- <sup>25</sup> Government Accountability Office, *Depot Maintenance: Actions Needed to Identify and Establish Core Capability at Military Depots*, GAO 09-83, May 2009.
- <sup>26</sup> U.S. Department of Defense, *Creating an Effective National Security Industrial Base for the 21st Century; An Action Plan to Address the Coming Crisis*, Report of the Defense Science Board Task Force on Defense Industrial Structure for Transformation, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, July 2008, pp. 9-10.
- <sup>27</sup> *DOD Weapons System Acquisition Reform: Product Support Assessment, op. cit.*, pp. 43-47.
- <sup>28</sup> Aerospace Industries Association, *op. cit.*, p. 6.

**Front Cover: C-47 Skytrain receives engine repairs during the Berlin Airlift (1948).**

**Back Cover: F/A-18 Hornet in the hangar bay of the USS Harry S. Truman aircraft carrier (2010).**



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