



PERFORMANCE-BASED LOGISTICS

Redefines Department of Defense Procurement

‘Paying for results’ rather than product specifications will likely enter civilian supply chains. BY KATE VITASEK AND STEVE GEARY

There is buzz around the Pentagon about something called Performance-Based Logistics (PBL) that just won't go away and it is starting to be heard with respect to companies that have not traditionally done business with the DoD.

In DoD speak, PBL is defined in the Defense Acquisition Guidebook as "...an integrated, affordable, performance package designed to optimize system readiness and meet performance goals for a weapon system through long-term support arrangements with clear lines of authority and responsibility."

The emergence of Performance-Based Logistics reflects how warfare has changed post-Cold War. Instead of facing a single imminent standing army threat such as the Soviet Union, the U.S. armed forces now must be agile and prepared to engage in fast-paced, rapidly emerging conflicts fought on multiple fronts against different enemies. This means that the previous doctrine of stockpiling large quantities of parts to cover necessary

repairs at known, fixed locations is no longer effective.

At the same time, the average age of equipment being used by the military continues to grow, creating an ever-growing requirement for maintenance to keep the equipment combat capable. This generates a competition for scarce financial resources.

PBL began to emerge as a body of thought in the late 90s, and was codified in 2001 when the DoD issued policy stating that PBL would be their preferred method for procuring support for the weapon systems.

The University of Tennessee has profiled the evolution of PBL in a white paper "Performance-Based Logistics: The Changing Landscape in Support Contracting" available online at http://bus.utk.edu/utpbl/white_papers.htm.

The fundamentals of PBL

PBL is a different approach to buying what the military calls logistics support (which includes maintenance and



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repair). PBL doesn't change the nature of the requirement: the Pentagon still needs to keep airplanes flying, tanks rolling, and warships afloat around the world. What is distinctive about PBL is that now the DoD client buys performance outcomes instead of what has historically been individual transactions defined by product specifications. PBL is about paying for results.

In the past, the DoD has dictated to contractors what to produce, when to produce it, what activities to perform, and paid for it. In a classic fee-for-service arrangement, the more the contractor produced, the more money they made. With the implementation of PBL, the government simply tells the contractor what the desired performance outcome is in terms of measurable metrics and lets the contractor utilize industry best practices to efficiently and cost effectively meet those goals.

Under this arrangement, the DoD does not pay for unit transactions of such support services as warehousing, transportation, spare parts, repairs, or hours of technical support.

So what makes PBL work?

The University of Tennessee is currently conducting a PBL benchmarking study funded by the U.S. Air Force, reviewing twenty-four PBL programs from the Air Force, Army, and Navy that have documented PBL successes. The intended outcome of this research is to benchmark PBL successes and utilize those successes to help the USAF reach the next level in Performance-Based Logistics.

As part of the research, the University of Tennessee has identified 15 attributes of a good PBL. These include:

- **Performance Definition.** Top-level broad scope outcomes optimizing readiness, availability, reliability, cycle time, and affordability.
- **Performance Measurement.** Minimum number of top-level 'Outcome' metrics that measure and are aligned to warfighter needs and tightly aligned with Support Provider scope of authority.
- **PBL Knowledge Base.** Comprehensive knowledge

In the past, the DoD told contractors what to produce, when to produce it, and what activities to perform. With PBL, the government defines the desired outcome and lets contractors decide how to get there.

Profile of a PBL Program: The Navy's Forward-Looking InfraRed

The Navy's Forward Looking InfraRed (FLIR) program, which won the Secretary of Defense Performance-Based Logistics Award for 2006 at the sub-system level, exemplifies how the process works.

The FLIR system enables H-60 helicopter to detect, track, classify, identify and attack targets like fast-moving patrol boats or mine-laying craft. When first developed, it was expected to have at least 500 hours of operation before failure; it averaged less than 100 hours.

Raytheon has built to FLIR to the DoD's specs, but problems arose in the design and support of the system after it launched. At one point, in the Atlantic Fleet alone, more than one-third of

the twenty-one deployed H-60 helicopters had FLIR system failures.

The program team turned to a PBL business model to improve performance and reduce costs associated with the burden of unexpected maintenance and logistics support. The team implemented a 10 year, fixed price agreement, which was priced per flight hour and valued at \$123 million over the ten-year life of the contract. This fixed price by flight hour contract gave Raytheon incentive to improve reliability and help reduce the necessity for removal of this units from the aircraft.

Originally, cost savings were projected to be around \$31 million, but have now been estimated to exceed \$42 million. In addition, the

team implemented a public-private partnership in which Raytheon subcontracted with NADEP (Naval Depot) Jacksonville to provide over 80 percent of the repair labor hours for the units, while Raytheon still maintained responsibility for supply chain management, configuration management, and total system performance. In this way, each party was able to utilize their best practices to streamline the FLIR repair process.

Since the inception of this PBL in October 2003, the H-60 FLIR components have experienced a 100 percent availability rate and achieved a 40 percent growth in system reliability improvement as well as a 65 percent improvement in repair response time.



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- **Performance Incentives.** Incentives tightly aligned, promoting behaviors and outcomes that benefit both Customer and Support Provider.
- **Financial Enablers.** Support treated as “must pay bill” over contract term; Complete visibility of support funding; All necessary ‘colors’ aligned to program as needed.
- **Product & Process Improvement.** Support Provider is clearly incentivized and afforded authority to plan for and implement continuous product and process improvement.

According to Debra Walker, Deputy Assistant Secretary of the Air Force for Logistics, Office of the Assistant Secretary of the Air Force for Installations, Environment and Logistics, Washington, D.C.: “There are some very good programs currently being handled under a Performance-Based Logistics structure.

It is our hope, that by benchmarking these programs we can help the Air Force take their PBL programs to the next level.”

Getting started with PBL

Most thought leaders agree that the PBL business model works, but not all programs have lived up to the success they hoped to achieve. Why is this? Many point to poor application of the PBL concepts.

A report of the Acquisition Advisory Panel sums it up best: “When individuals without the proper training and experience attempt to implement a performance-based contract, the results are understandably and expectedly poor... there is trouble consistently implementing it by an inconsistently trained workforce.”¹¹

So where can you go to get started? There are two main resources—the Defense Acquisition University and the University of Tennessee.

In March of 2005, the DoD issued a “user’s manual” for contractors to help them sort through how to apply PBL to their programs. This guidebook, “Performance-Based Logistics: A Program Manager’s Support Guide,” sets the foundational principles.

The University of Tennessee’s Center for Executive Education is bringing innovative approaches to learning through PBL education. UT is one of the few universities in the country that has a focused program for the Aerospace and Defense industry. As such, UT seeks to be an active leader in developing PBL training for contractors.

The UT courses have been widely received by PBL leaders such as Lockheed Martin, Raytheon, BAE Systems, Boeing, Northrup Grumman, and Pratt & Whitney; Raytheon has even opted to have UT do in house training.

UT and Defense Acquisition University have also teamed up to create program specific workshops with a combined team of both DoD and contractor personnel. These workshops are designed to provide targeted

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and experience in PBL concepts, tenets, business model, and implementation of PBL strategies.

- **Organizational Alignment.** Both Horizontal and Vertical alignment, with full visibility and coordination on top-level outcomes driving lower-level outputs in most efficient manner.
- **Risk Alignment.** Effective balance of increased Support Provider risk offset by high flexibility and high reward incentives.
- **Stakeholder Perspectives.** Strong consensus across all stakeholders toward common support strategy objectives. Strong top-down support to align stakeholders for optimal solution.
- **Work Scope.** Scope of work encompasses broad range of Logistics elements at highest possible level of system operational use and is fully aligned with assigned performance and support outcomes.
- **Workload Allocation.** Workloads are distributed to the most effective providers consistent with statutory guidelines, best competencies, and best value; effective use of Public-Private Partnering.
- **Workload Flexibility.** Customer specifies outcomes in terms of high-level objectives with minimal prescriptive direction. Significant Support Provider flexibility regarding ‘how’ to achieve designated outcomes.
- **Supply Chain Integration.** Maximum Support Provider management and visibility of supply chain. Supply chain components align to optimizing for the end item, vice internal processes.
- **Contract Length.** Multiple year or Multi-year contract term (i.e. 5 years with additional option or award term years) with high confidence level for exercising options/award term years.
- **Contract Type and Terms.** Fixed Price with explicit or implicit incentive towards achievement of top-level system outcomes that include availability, reliability, product & process improvement and affordability.

just-in-time training to programs that are adopting a PBL business model. The workshops focus on specific areas of interest, relevant to the programs at that point in time. For teams early in the development of a PBL contract, the focus of the workshops tends to be on the development of a foundation set of knowledge around PBL, with an emphasis on driving goals alignment between the government customer and the lead product support integrator. For more mature programs, the audience can be broadened to include tier 2 and 3 suppliers, with the workshop focus on driving alignment across the entire community.

What's next for PBL?

In recognition of PBL's success in delivering higher performance along with lower cost, the DoD issued a policy directive on October 2, 2006 stating its intention to extend PBLs to all of its major procurement categories.²

This policy directive places an emphasis on applying performance-based approaches to services that do not involve weapon systems. This means that DoD will now be implementing Performance-Based Logistics approaches in areas such as facility management, traditional logistics support such as 3PL services, and administrative and advisory service.

The UT team strongly believes that performance-based approaches can be applied to general services as well as weapon systems. In fact, in their research, the team looked at several success stories where PBL was

beginning to be applied outside the DoD in the commercial sector. The team predicts that PBL will move from beyond a DoD phenomenon to become a popular approach for commercial companies to outsource for services such as property management, third-party logistics services or even administrative support such as mailroom or copy center services.

PBL has been proven to be effective as a means of purchasing higher quality results at lower cost to the government by allowing defense contractors to utilize industry best practices. Facts show that the use of PBL can bring extensive improvements to a weapon system, while lowering costs and increasing reliability and availability. Next we expect to see progressive commercial companies start using performance-based concepts outside of weapon system support for the DoD. **WT**

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1 Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress, January 2007 pp 176

2 Performance-Based Logistics: The Next Big Thing? ProLogis Supply Chain Review, Summer 2007

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