
When And How To Use PBL?

When And How To Use PBL?

- PBL Definition
- PBL Applicability
- Characteristics Of PBL
- What PBL Is Not
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- PBL And DoD's Desire To Modernize
- Is It Really PBL
- Scope And Complexity Of PBL
- Comparison Of PBL With Traditional Support Strategies
- Issues To Consider When Responding To PBL Requirements

What Is Performance Based Logistics (PBL)?

- Government Definition¹
- PBL is a strategy for supporting weapons systems through the acquisition of support as an integrated performance package designed to optimize system readiness.
- PBL meets performance goals for a weapon system through a support structure of performance-based agreements (PBA) with clear lines of authority and responsibility.

¹Defense Acquisition University, LOG 235, Distance Learning Module, "Performance Based Logistics"

PBL Applicability

- Item configurations covered must be an ACAT 1 or 2 weapon system or be an item installed on these systems
 - Entire systems
 - New system or system-of-system acquisitions (i.e. F-35, FCS)
 - Legacy programs (i.e. C-12, C-20)
 - High value, long lived, subsystems (i.e. APU, engine)
 - System unique LRUs (i.e. actuator, generator)
 - System unique non-repairables (i.e. hose, screw)

PBL Applicability

- Example Of Logistics Activities That Can Be Incorporated Into A PBL Program
 - Manage the forward and reverse supply chain of LRUs, non-repairables and consumable parts required by field or sustainment maintainers
 - Planning
 - Sourcing/Acquisition
 - Storage, control and moves
 - Disposition
 - Manage consumption; contractor owns parts

Characteristics Of PBL

- PBL is Holistic in nature
 - Addresses total life cycle support of a weapons system
 - Peacetime/Wartime
 - Cradle to grave
 - Forces logistics considerations to be addressed during the design phase rather than after production and deployment
 - 80% of future lifecycle costs are frozen by the end of Systems Design and Demonstration
 - Actually 80% of future lifecycle costs are frozen by the Preliminary Design Review (PDR)
 - Provides a strategy for continuous weapons system modernization
 - Contracting for performance results not individual logistics products or services

Characteristics Of PBL

- Provides clear lines of accountability for results
 - Common set of customer driven performance expectations
 - Expectations documented in a Performance Based Agreement (PBA) between warfighter and Product Manager
 - Product Manager manages an optimized supply chain through a PBA with a Product Support Integrator (PSI) and Product Support Providers (PSP)
 - Performance is evaluated based on negotiated metrics that support warfighter expectations

Recent GAO report on PBL suggests that only the government can serve as PSI since many aspects of availability are outside a DoD Contractor's ability to influence such as mission, resource application, priorities

PBL Is Not

- Another name for Contractor Logistics Support (CLS)
- An initiative intended to consolidate all logistics support with Original Equipment Manufacturers (OEMs)
- An attempt to get rid of small business participation in the logistics process
- A cynical attempt to outsource government jobs

Government Objectives In PBL Initiative

- Increase satisfaction level of warfighter (for new and legacy systems):
 - Increase system availability (when I'm ready, it's ready)
 - Increase system reliability (when I use it, it works)
 - Reduce logistics footprint in order to increase speed of deployment of a system (less weight, space, people)
 - Create a lean relationship (I don't want to contact you with any issues, you've solved them before I know there is a problem)
 - Decrease lifecycle cost to manage a system
- Increase the use of contractor's best-of-breed management processes and technology investments to achieve warfighter objectives; speed of change

Government Objectives In PBL Initiative

- Increase Public Private Partnerships (PPP) activity to assure retention of government's organic base, improve its utilization and conform to Title 10
- Increase contractor profit potential by providing incentives to continually be more efficient and still meet their performance requirement to their customer
- Reduce the transactional intensity associated with a legacy offering
- Reduce DMS issue occurrences; reduces its impact upon lifecycle efficiency and effectiveness
- Increase the distribution to others of the unfavorable performance risks traditionally borne exclusively by the government

Government Objectives In PBL Initiative

- Increase duration of contractual agreements in order to provide opportunities:
 - For the contractor to make long-term investments that will:
 - Lower and stabilize their total expenditures and in turn enable them to provide...
 - Lower and less volatile prices, as well as equal or greater effectiveness to the government, which in turn will enable the government to...
 - Be more efficient and effective in system lifecycle management
 - For the contractor to better favorably impact the long-term system effectiveness requirements (availability, reliability, footprint and cost) of the government
 - For greater “trust” between the parties by being “joined-at-the-hip” for the long-term...I fail, you fail

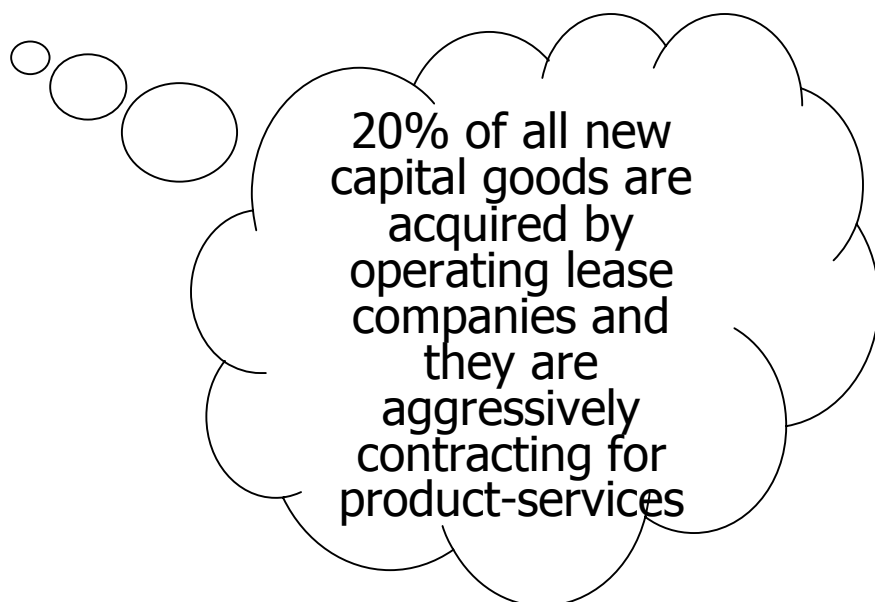
***The legacy Statement Of Work (SOW) has evolved into a PBL Statement Of Objectives (SOO)
...I will tell you what I need to achieve and you will tell me how you will get there***

Commercial Antecedent To PBL; Product-Services

- Product-Services have been in use by Commercial Industry for decades, are emerging as an “industry best practice” and the driver of a new business model that has the same goals as that of the PBL initiative
- The Aircraft Industry has led the way with concepts such as “power-by-the-hour”...but other sectors are also involved in a business model in which the customer is assured to be delivered fixed effectiveness and efficiency performances for managing product lifecycle activities

Commercial Antecedent To PBL; Product-Services

- Aircraft
 - GE/Pratt & Whitney/Rolls Royce-Jet Engines (40-60% of engines under programs)
 - Honeywell/Rockwell Collins-Avionics
 - Lucas Aerospace-Landing Gears
 - Honeywell-Auxiliary Power Units
- Others (selected examples)
 - Embrex-Poultry Egg Inoculation
 - HP-Large Format Printing
 - FMC Tech-Juice Extraction
 - Hanover Compressor-Natural Gas Pipeline Compressors



DoD Declarations Of PBL Successes



F/A-18 Stores Management System (SMS)
 Pre - PBL LRT = 42.6 Days
 PBL LRT = 2 Days CONUS
 7 Days OCONUS

Pre-PBL and PBL Logistics Response Times (LRT's) Availability Improvements ...but if you don't get rid of "excess" supply as a result of cycle time reduction, have you accomplished anything?

Tires
 Pre - PBL LRT 28.9 Days
 PBL LRT = 2 Days CONUS
 4 Days OCONUS



H-60 (Avionics)
 Pre - PBL LRT = 52.7
 PBL LRT = 8 Days



APU (auxiliary power unit)
 Pre-PBL = 35 Days PBL
 PBL LRT = 6.5 Days



ARC-210 (radio)
 Pre - PBL LRT = 22.8 Days
 PBL LRT = 5 Days

Achieving Commercial Standards through PBL.

Though The UK MoD Has Had The Most Success

- BAE will take over depot-level support and line maintenance, under the Availability Transformation: Tornado Aircraft Contract (ATTAC) program for the RAF's Tornado fleet, with the responsibility of ensuring that enough Tornado jets are available to fly rather than being paid for selling spare parts
- Rolls Royce Harrier support contract under Mission Ready Management System program
- Rolls Royce and Lockheed Martin support C-130 under HIOS program
- BAE Systems VC10 transport under Javelin Amber program

PBL As An Enabler Of Modernization

- PBL changes the equation when it comes to modernization
 - Current weapons platforms are remaining active longer than planned design life. Escalating support costs as they age
 - B52 (80+ years)
 - A10 Warthog
 - M109A6
 - M1 Abrams MBT
 - M2/3 Bradley Fighting Vehicle
 - KC-135 (60 years)
 - New weapons platforms being developed

PBL As An Enabler Of Modernization

- PBL changes the equation when it comes to modernization
 - Achieving modernization is expensive for DoD
 - Mitigating the cost of obsolescence and Diminishing Manufacturing Sources (DMS)
 - Moving to open architectures from proprietary architectures
 - Leveraging commercial investment in technology through COTS and open architecting
 - Government currently bares all costs associated with modernization

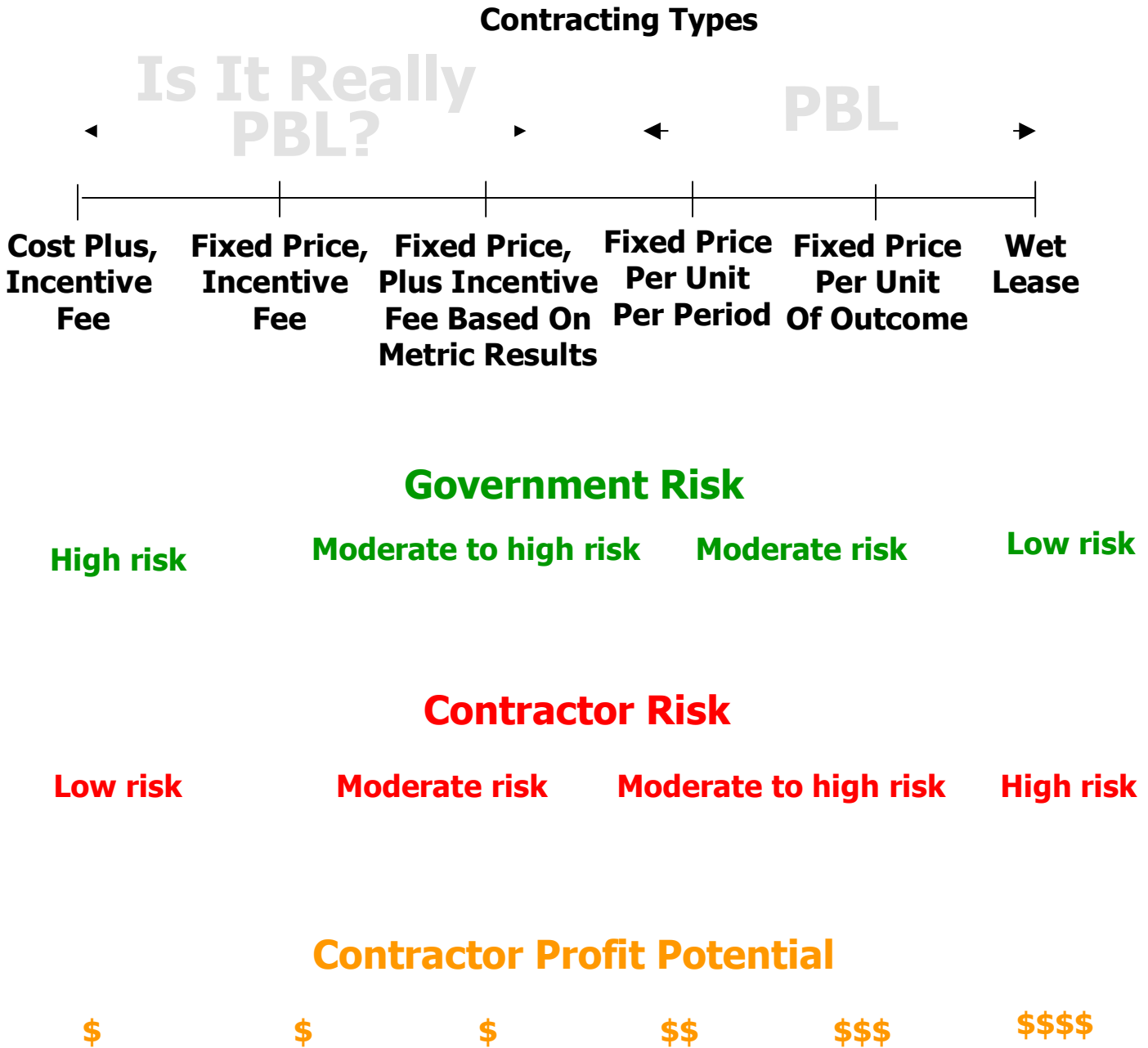
PBL As An Enabler Of Modernization

- Contractor shares risks and rewards to ensure system stays active and available
 - Motivated to modernize weapons systems
 - Motivated to continuously improve reliability
- Motivated to continuously improve reliability
 - Less parts and maintenance - higher profits
 - Correct problems before they result in inventory impairment and higher costs for reacquisition of materials
 - Deals with obsolescence

Is It Really PBL?

- Not every contract with “performance based” written into it is a PBL contract
 - Performance based contracting in place for years
 - Value based contract awards based on factors other than cost
 - Performance Metrics
 - Incentive fees and penalties
 - True PBL is much more expansive
 - Fixed-price-per-unit of output (i.e., flight hour, cycles of operation); impact upon a product’s efficiency is assured
 - Fixed-price-per-period-per-unit-enrolled is alternative to above
 - Higher profits because contractors share risk of unfavorable performance
 - Incentive to continuously improve product reliability; impact upon product’s effectiveness is assured
 - Improve capabilities through product modernization

Continuum of Performance Based Contracting Types



So What Is Different From Traditional Log Support?

| Business Model Element | Legacy Attributes | PBL Attributes | PBL Impact On Contractor |
|--|--|---|---------------------------------|
| Payment for offering delivery | Pay upon transaction | Fixed periodic payment | Predictable cash inflow |
| Warranty | Limited | None | Reduced admin |
| Contractor cost visibility to DoD | Transparent | Opaque | Minimum DoD auditing |
| Customer relationship required | Low level | High level | Close to customer |
| Contractor internal operational performance visibility | Opaque | Transparent | Performance metrics |
| Maintenance of military/industrial base | Mostly organic, with leftovers for contractors | Contractor focused for proprietary, with PPP encouraged | Larger market size |
| Contract length | Short; less than 2 years | High; usually 5 years+ | Ability to plan long-term |

So What Is Different From Traditional Log Support?

| Business Model Element | Legacy Attributes | PBL Attributes | PBL Impact On Contractor |
|---|--------------------------|---|--|
| Ownership of IP such as reliability data and configuration data | DoD owned | Contractor owned through TDP | Closer to commercial model, with an increase in IP balance sheet value |
| Obtaining profits | More is more | Less is more | EBIT of 20-35% vs 7-12% |
| Cashflow | Progress payments | Initial investment drives flow negative | Cash outflow requires aggressive management |
| Cost Of Sales timing | Same period as revenue | Out of period with revenue | Shift from government accounting to managerial accounting |
| Risk of unfavorable financial performance | Low | Low to High | A poorly crafted program will result in unrecoverable loses |
| Organizational focus | Process | Customer Program | Energizes organization to be EBIT, cashflow & customer focused |

So What Is Different From Traditional Log Support?

| Logistics Contract Type | If Contractor Impacts DoD Performance As Below: Actual vs Assured Variance | ..Then Contractor Actual vs Planned Variance Profits Are Impacted As Below |
|--|--|--|
| Legacy: cost-plus or fixed-price, with performance incentive fee | ↑ | ↑ |
| | ↔ | ↔ |
| | ↓ | ↓ |
| Performance Based Logistics (PBL) | ↑ | ↓ |
| | ↔ | ↔ |
| | ↓ | ↓ |

Breadth Of PBL Scope

| PBL PROGRAM POTENTIAL OFFERINGS | | | | | | | | | | | | | | | | | |
|--|---------------------|-----|---|---------------------|------------------------|-------------------------|-------------------------------------|---------|-----------------|--------------------|--------------------------|----------------------|-------------------------|-------------------------------|--------|-----------|-----------|
| Offering Type | Accountability Type | | Government Payment For Parts (Integration Added To Parts Price) | | | | Supply Chain Integration Management | | | Item Source Types | | | | Configuration Supported Types | | | |
| | PSI | PSP | Profile-Of-Operation Driver (i.e. flight hours, cycles) | Retail Parts Issues | Wholesale Parts Issues | Wholesale Parts Receipt | Forward | Reverse | PPP Sustainment | System Proprietary | MCOTS System Proprietary | COTS For System Only | Common To Other Systems | System Of Systems | System | Subsystem | Component |
| 1 | N | Y | N | N | N | Y | Y | N | Y | Y | N | N | N | N | N | N | Y |
| 2 | Y | N | Y | N | N | N | Y | Y | Y | Y | Y | Y | N | N | N | Y | N |
| 3 | N | Y | N | N | Y | N | Y | Y | N | Y | Y | N | N | N | N | N | Y |
| others | | | | | | | | | | | | | | | | | |

GAO Report on PBL suggests that PSI total system support is the responsibility of the government since a contractor cannot control all the variables such as mission priorities, resources, changes in mission requirements

Issues To Consider When Responding To PBL Requirements

- Can a company make money at this? A robust internal financial analysis must be performed to balance risk with reward
- Many legal impediments exist with current FAR, though PBL is the desired system sustainment strategy within DoD
- Perceived as threat to government jobs; watch out for the gaming of the government's Business Case Analysis (BCA)!
- Can be managed through true government/industry Public Private Partnership (PPP)

Issues To Consider When Responding To PBL Requirements

- Government good at specifying “penalties,” but not necessarily good at providing incentives. Desire to push all of the risk to the contractor
- Definition of maximum profit; there should be none
- If you own the inventory, why is the government telling you that you must repair it in a government depot
- If you are an OEM, ensure that small business enterprises participate
- What will the impact be on the support approach. It is really too late to change a newly designed system to a revised support strategy after PDR during the SDD Phase

Issues To Consider When Responding To PBL Requirements

- For legacy systems, if there is a logistics management infrastructure that exists, the savings touted from PBL must not include personnel reduction
- Say no? The government specified it in the RFP, but the risk is too great for the company to propose a PBL strategy

ON A CURRENT PROGRAM 128 SUPPLIERS WERE LEVIED WITH A PBL REQUIREMENT. ONLY A HANDFUL PROPOSED A PBL APPROACH. OTHERS SIMPLY SENT IN CONTRACT LETTERS SAYING "NOT INTERESTED"

...Now we'll discuss why PBL can be "good" for contractors