DEFENSE ACQUISITION UNIVERSITY

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DoD Life Cycle Management (LCM) & Product Support Manager (PSM) Rapid Deployment Training

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"Never lose sight of who the ultimate customer is"

– GEN David Petraeus

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October 2010

Overview

- **Section I – Life Cycle Management (LCM)**
  - Life Cycle Management Challenge
  - Life Cycle Cost (LCC)
  - Life Cycle Sustainment Outcome Metrics
  - Life Cycle Sustainment Plan (LCSP)
  - Life Cycle Sustainment Governance
  - Linkage to USD AT&L 14 Sep 10 “Better Buying Power” Efficiencies Memo
- **Section II – Product Support Initiatives**
  - DoD Weapon System Acquisition Reform: Product Support Assessment (PSA)
  - Performance Based Life Cycle Product Support (PBL)
- **Section III – Product Support Manager (PSM)**
  - Public Law 111-84, Section 805 and Implementing Policies
  - PSM Professional Development
  - PSM Roles, Responsibilities, Expectations
  - PSM Resources & Enablers
- **Section IV – Life Cycle Logistics**
  - DoD Life Cycle Logistics (LCL)
  - LCL Workforce
  - LCL Professional Development
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Section I – Life Cycle Management (LCM)

- Life Cycle Management Challenge
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Life Cycle Management (LCM)

- "Life Cycle Management is the implementation, management, and oversight, by the designated Program Manager (PM), of all activities associated with the acquisition, development, production, fielding, sustainment, and disposal of a DOD system across its life cycle." (JCIDS Operation Manual)
- "The PM shall be the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment" (DoDD 5000.01, Para E1.29.)

PM has full accountability & responsibility for system acquisition <u>and</u> sustainment – new PSM directly supports

The Challenge

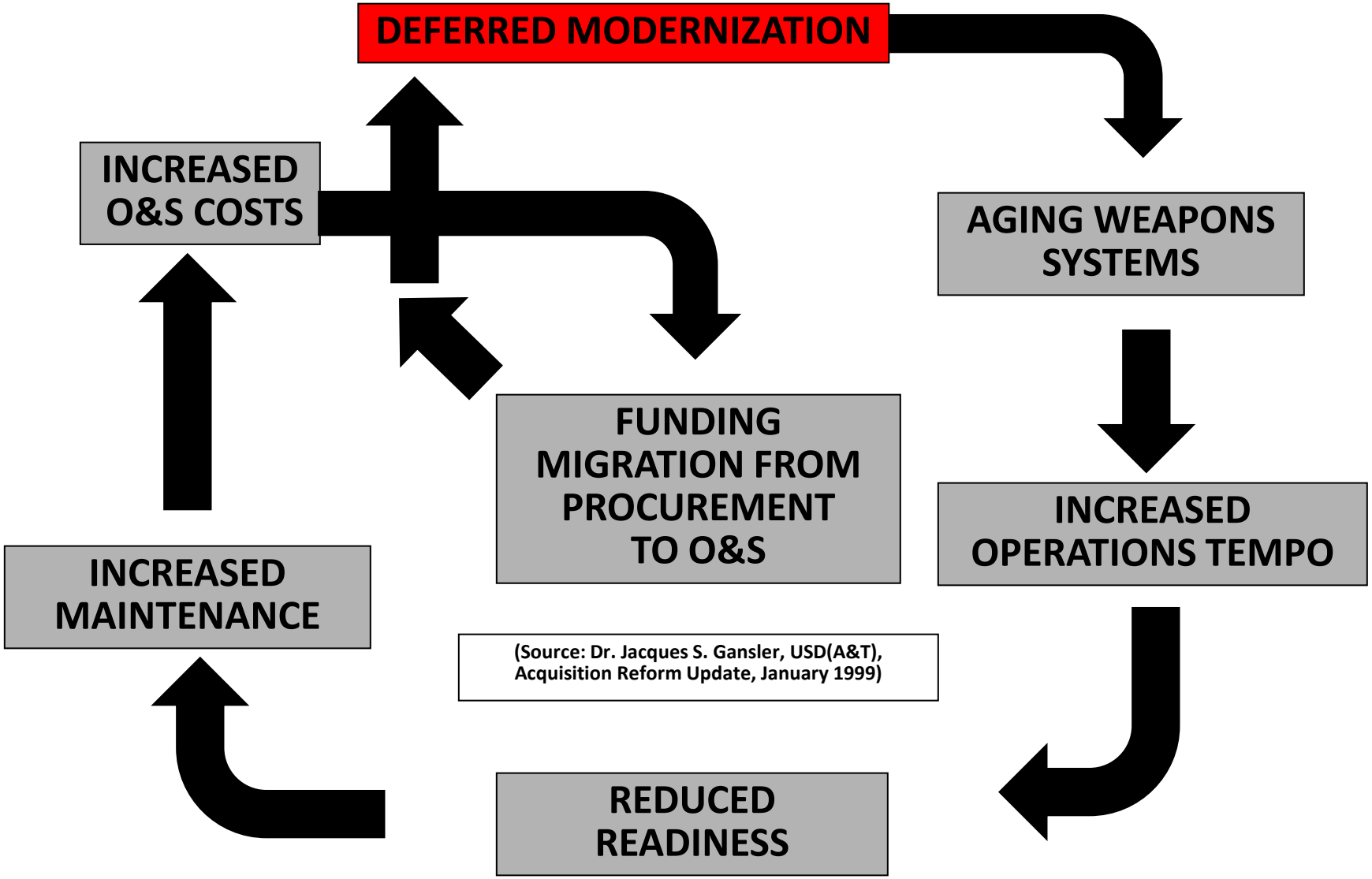
"Traditionally, development and procurement have accounted for about 28 percent of a weapon's total ownership cost, while costs to operate, maintain, and dispose of the weapon system account for about 72 percent of the total.

For a number of years, the department's goal has been to spend less on supporting systems and to devote more funds to development and procurement in order to modernize weapon systems. But, in fact, growth in operating and support costs has limited the department's buying power.

DOD officials have cited shortages of spare parts and unreliable equipment as reasons for low mission-capable rates for some weapons. As a result, some modernization has been postponed in order to pay high and unexpected operating and maintenance costs."

GAO-03-57 Setting Requirements Differently could Reduce Weapon Systems' Total Ownership Costs

The DoD "Death Spiral"



(Source: Dr. Jacques S. Gansler, USD(A&T), Acquisition Reform Update, January 1999)

Life Cycle Management is Not Really a New Concept

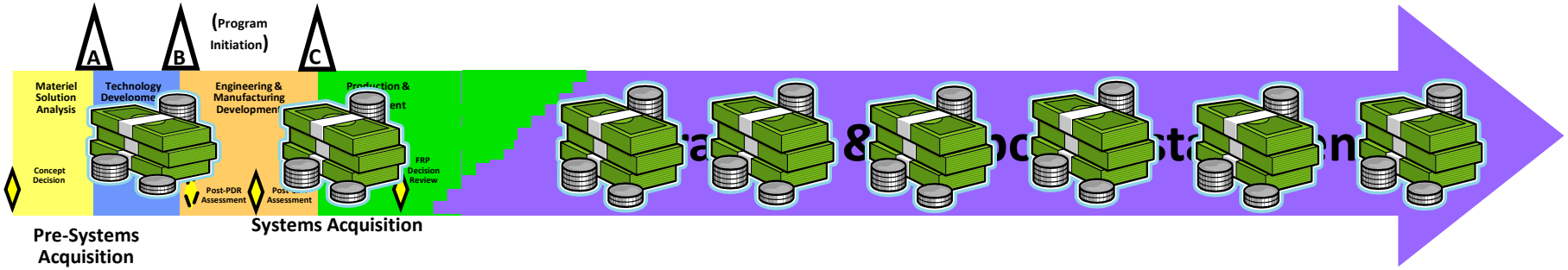
"Incorporating logistics considerations into the design of weapon systems was, in fact, official policy dating back to 1964: the Department of Defense obligated the Services to conceive weapon systems with logistics in mind, emphasizing the cost of the system over its entire life, not just the cost of an item at the end of the production phase. This concept of integrated logistics support was, of course, not new even in 1964; it represented the continuation of the long-standing interplay between the research and development process, and the logistics dimension.

"…(The) most vital function was seeing that logistics, including supportability and costs, throughout the life of the system were considered whenever decisions were made about the form of the system. It generally was far less difficult, costly, and time consuming to make design changes before a weapon system entered production than to make modifications in the completed system."

Source: HQ Air Force Logistics Command (AFLC) (now Air Force Materiel Command) Office of History, 1981

A Few Key LCM Points

- Life Cycle Management is DoD policy
  - Terminology varies (TLCSM, LCM, ILCM, LCS), but principles are the same
  - Goal to provide more effective, affordable, operationally-ready systems
  - Focus on increased reliability, availability, maintainability & supportability
  - Early focus on sustainment across the system life cycle



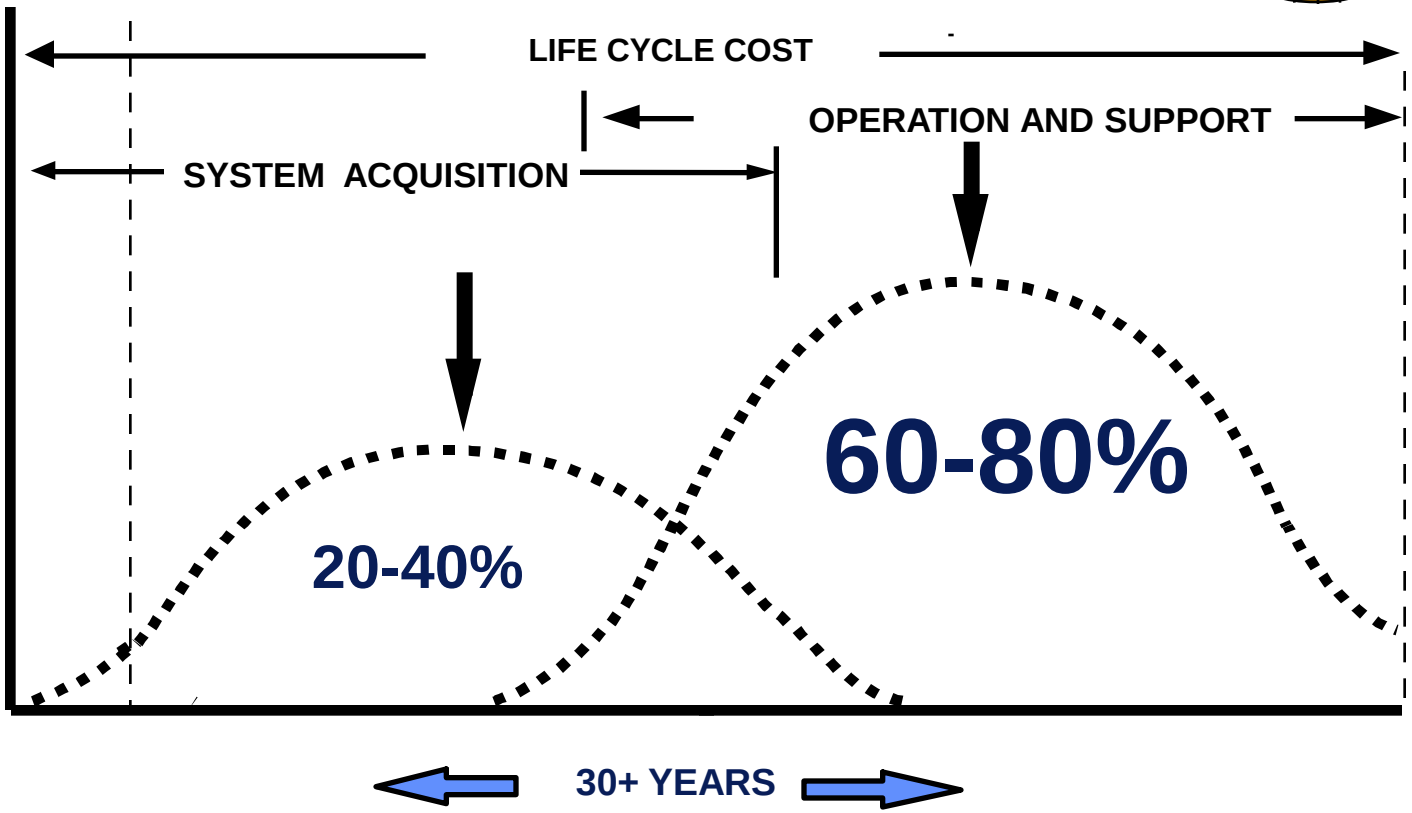
While the initial cost to acquire a weapon system is often high ……

…..Sustainment costs represent largest portion of total ownership costs!

"Up front" sustainment planning enables acquisition & requirements communities to deliver systems with optimal availability & reliability to warfighter at best value

Why is Life Cycle Management so Critical?

Typical DoD Acquisition Program with a Service Life of 30+ Years

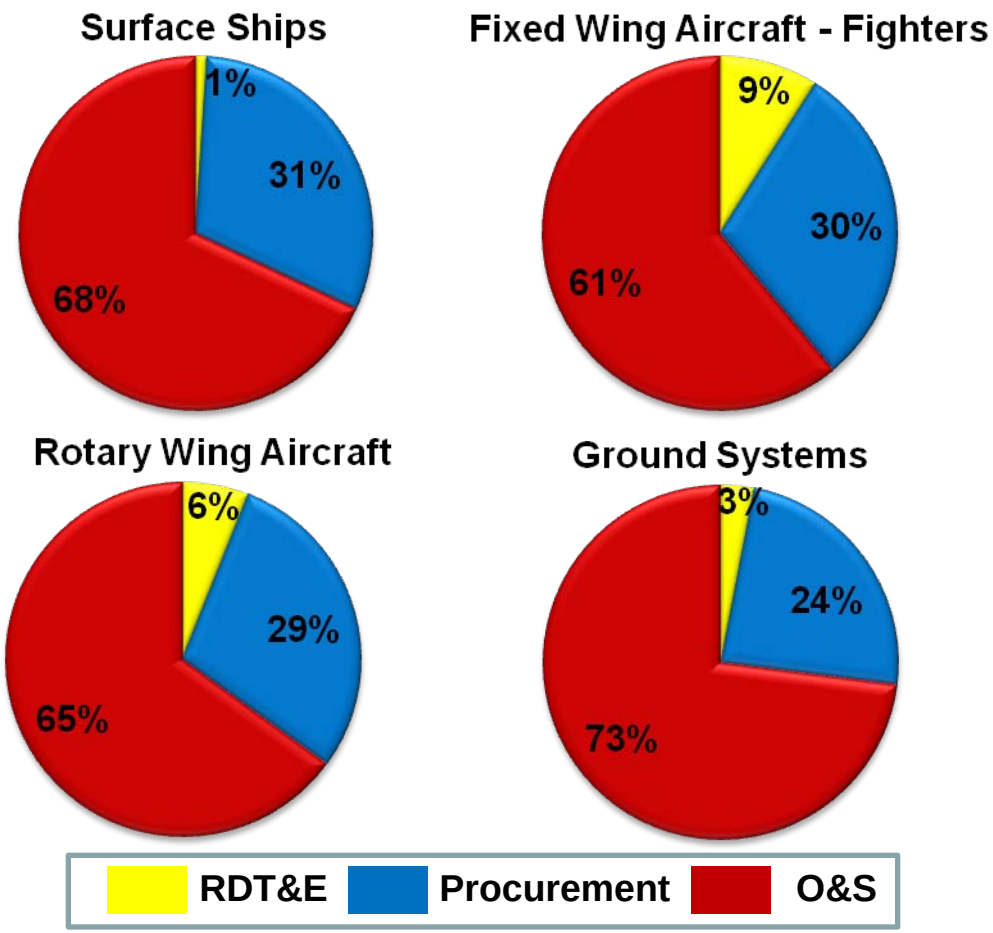


Nominal Life Cycle Cost Distribution

Managing DoD Total Ownership Cost (TOC)

National Interest:

- ✓ WSARA – May '09
- ✓ CAPE Report to Congress
- ✓ GAO Study - ongoing
- ✓ WSAR PSA – Nov '09
- ✓ Service Initiatives/BCAs
- ✓ QDR
- ✓ Budget Pressures
- ✓ Proposed HR 5013 IMPROVE Acquisition Act – Apr '10



- Long track record of real annual growth
- O&S costs tend to increase with greater weapon system complexity
- 60-80% O&S costs as percentage of TOC remained fairly steady for many years

Source: CAPE, June 2009 Data

Mandatory Sustainment KPP & KSAs

- **A Sustainment KPP (Availability) & two mandatory supporting KSAs (Materiel Reliability and Ownership Cost) will be developed for all JROC Interest programs involving materiel solutions**
  - **In the case of mandated Sustainment KPP (Materiel Availability), the supporting Materiel Reliability and Ownership Cost KSAs require changes to be documented in the subsequent update to the APB.**
- **Definitions:**
  - **KPPs are those system attributes considered most critical or essential for an effective military capability"**
    - Failure to meet a KPP threshold may result in reevaluation or reassessment of the program or a modification of the production increments
  - **KSAs are system attributes considered most critical or essential for an effective military capability but not selected as a KPP.**
    - KSAs provide an additional level of capability prioritization below the KPP but with senior sponsor leadership control (generally 4-star level, Defense agency commander, or Principal Staff Assistant)

Additional Information: 31 Jul 09 JCIDS Operation Manual
https://www.intelink.gov/wiki/JCIDS_Manual

Mandatory Sustainment KPP & KSAs

- **Availability KPP:** Mandatory for ACAT I; sponsor decision for ACAT II/III. **Two components**:
  - **Materiel Availability:** Percentage of the total inventory of a system operationally capable of performing an assigned mission at a given time ***(Number of Operational End Items / Total Population)***
  - **Operational Availability**: Percentage of time a system or group of systems within a unit are operationally capable of performing an assigned mission ***(Uptime/(Uptime + Downtime))***
- **Mandatory KSAs:**
  - **Materiel Reliability KSA:** Probability that system will perform without failure over a specified interval. ***MTBF = (Total Operating Hours / Total # of Failures)***
  - **Ownership Cost KSA:** Based on Cost Analysis Improvement Group (CAIG) elements: unit operations, energy/POL, maintenance, sustaining support, continuing system improvements, regardless of funding source ***(O&S Costs Associated w/ Materiel Readiness)***
- **Ownership Cost provides balance; sustainment solutions cannot be availability and reliability "at any cost"**

Combatant Commander needs correct number of operational end items capable of performing mission when needed AND confidence systems will perform mission and return safely without failure

Four DoD Life Cycle Sustainment Outcome Metrics

Goals Determined By Warfighter Needs

- **Availability (Materiel & Operational Availability) (KPP*)**
  - A Key Data Element Used In Maintenance & Logistics Planning
- **Materiel Reliability (KSA*)**
  - Provides A Measure Of How Often The System Fails/Requires Maintenance
  - Another Key Data Element In Forecasting Maintenance/Logistics Needs
- **Ownership Cost (KSA*)**
  - Focused On The Sustainment Aspects Of The System
  - An Essential Metric For Sustainment Planning And Execution
  - Useful For Trend Analyses – Supports Design Improvements/Modifications
- **Plus Mean Downtime**
  - A Measure Of How Long A System Will Be Unavailable After A Failure
  - Another Key Piece Used In The Maintenance/Logistics Planning Process
- **Other Sustainment Outcome Metrics May Be Critical To Specific Systems, And Should Be Added As Appropriate**
- **Established in 10 Mar 07 DUSD (L&MR) Policy Memo**
  - https://acc.dau.mil/CommunityBrowser.aspx?id=141309

** Sustainment KPP & KSAs Included in CJCSM 3170*

These 4 Life Cycle Sustainment Outcome Metrics Are Universal Across All Programs And Are Essential To Effective Sustainment Planning

Life Cycle Sustainment Plan (LCSP)

- "DoD Instruction 5000.02 requires that a LCSP be developed and included as a part of the Acquisition Strategy to document how the sustainment strategy is being implemented" *(DAG para 5.1.2.2.)*
- …the **LCSP is an evolutionary document** begun during the Materiel Solution Analysis Phase as a strategic framework for obtaining optimal sustainment at minimal LCC. **It evolves into an execution plan** for how sustainment is applied, measured, managed, assessed, and reported after system fielding. By Milestone C, it should contain details on how the program is fielding integrated logistics elements to meet readiness targets, sustain system performance capability threshold criteria, mitigating operating and support (O&S) costs, reducing the logistics footprint, and complying with environmental and other logistics related regulations." *(DAG para 5.1.2.2.)*
- "System sustainment is enabled by effective planning, development, implementation, and management. To accomplish this, the program manager needs to adequately **plan for the long-term supportability and sustainment through the aggressive application of performance-based life-cycle product support strategies**. The plan for implementing these strategies seamlessly spans the entire life cycle and is spelled out in the Life-Cycle Sustainment Plan (LCSP)." *(DAG para 11.7)*
- References
  - LOG CoP LCSP Site - https://acc.dau.mil/lcsp
  - Defense Acquisition Guidebook - https://dag.dau.mil/Pages/Default.aspx
  - LCSP ACQuipedia Article - https://acc.dau.mil/CommunityBrowser.aspx?id=390167

Strengthened Sustainment Guidance for Acquisition Program Reviews

- **USD AT&L April 5, 2010 Policy Memo "Strengthened Sustainment Governance for Acquisition Program Reviews"**
  - "…. to improve program life cycle management (and) strengthen sustainment governance by conducting detailed reviews of…sustainment planning for all ACAT ID weapons systems…at decision and other review points in the acquisition process."
  - To increase visibility of sustainment factors to ensure delivery of "a program that meets Warfighter materiel readiness objectives with long-term affordability consideration."
  - To facilitate a comprehensive review and provide the required information in a standardized format, program managers are to use the sustainment quad chart to report status of sustainment planning at OIPT and Defense Acquisition Board reviews."
- **Four quad chart focus areas :**
  - Product Support Strategy (current sustainment philosophy & future differences)
  - Metrics Data (current estimates of sustainment metrics vs. goals and antecedents)
  - Sustainment Schedule (planned sustainment schedule milestones)
  - O&S Data (status of O&S Costs; comparison of antecedent, baseline, & current costs)
- **Memo:** https://acc.dau.mil/CommunityBrowser.aspx?id=360875&lang=en-US
- **Video:** http://view.dau.mil/dauvideo/view/eventListing.jhtml?eventid=2363&c=343

SAMPLE PROGRAM: "ABC"

Date:

Product Support Strategy

Sustainment Approach

- Current (initial CLS covering total system)
- Future (sub-system based PBL contracts)

Issues

- Shortfall in O&M funding in FYDP
- Reliability and availability estimates are below goals
- LCSP requires update before DAB

Resolution

- POM request for O&M restoration submitted
- Reliability improvement plan with clear RAM goals up for final signature
- LCSP in draft

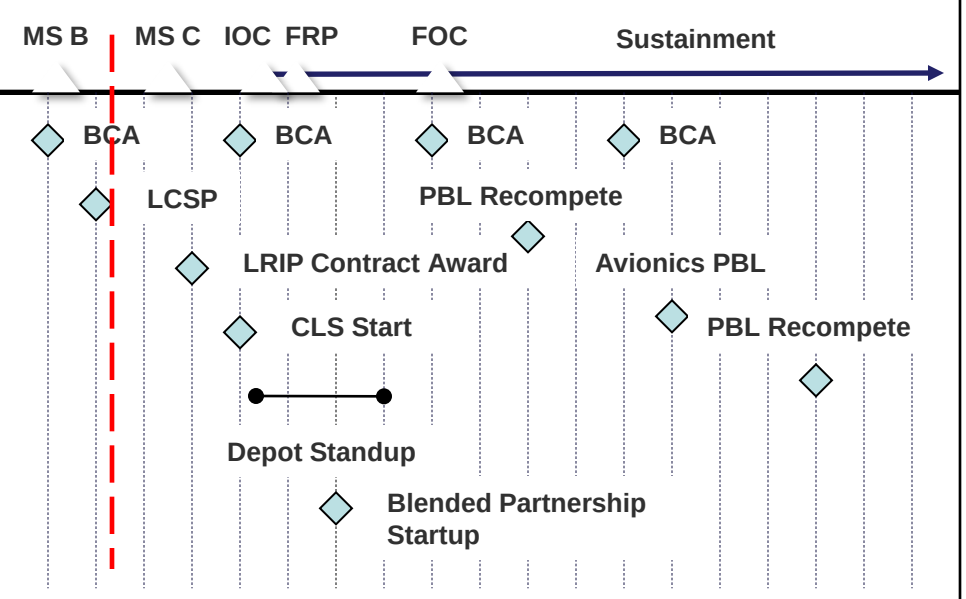
Metrics Data

Metric	Antecedent Actual	Original Goal	Current Goal	Current Estimate/ Actual
Materiel Availability	76%	80%	77%	71%
Materiel Reliability	37 hrs	50 hrs	50.5 hrs	48 hrs
Ownership Cost	245.6B	385.5B	395.1B	395.1B
Mean Down Time	12 hrs	20 hrs	18 hrs	15 hrs

* Test or fielding event data derived from _____

Notes:

Sustainment Schedule



O&S Data

Cost Element	Antecedent Cost	ABC Original Baseline	ABC Current Cost
1.0 Unit-Level Manpower	3.952	5.144	5.750
2.0 Unit Operations	6.052	6.851	6.852
3.0 Maintenance	0.739	0.605	0.688
4.0 Sustaining Support	2.298	2.401	2.401
5.0 Continuing System Improvements	0.129	0.025	0.035
6.0 Indirect Support	1.846	1.925	1.956
Total	**15.046**	**16.951**	**17.682**

Cost based on average annual cost per squadron

Total O&S Costs	Antecedent	ABC
Base Year $M	102,995.2	184,011.9
Then Year $M	245,665.3	395,147.2

USD AT&L 14 Sep 10 Memo "Better Buying Power: Guidance for Obtaining Greater Efficiency & Productivity in Defense Spending"

Defense Acquisition University

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

SEP 14 2010

ACQUISITION, TECHNOLOGY AND LOGISTICS

MEMORANDUM FOR ACQUISITION PROFESSIONALS

SUBJECT: Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending

On June 28, I wrote to you describing a mandate to deliver better value to the taxpayer and warfighter by improving the way the Department does business. I emphasized that, next to supporting our forces at war on an urgent basis, this was President Obama's and Secretary Gates' highest priority for the Department's acquisition professionals. To put it bluntly: we have a continuing responsibility to procure the critical goods and services our forces need in the years ahead, but we will not have ever-increasing budgets to pay for them. We must therefore strive to achieve what economists call productivity growth: in simple terms, to DO MORE WITHOUT MORE. This memorandum contains specific Guidance for achieving the June 28 mandate.

Secretary Gates has directed the Department to pursue a wide-ranging Efficiencies Initiative, of which this Guidance is a central part. This Guidance affects the approximately $400 billion of the $700 billion defense budget that is spent annually on contracts for goods (weapons, electronics, fuel, facilities etc., amounting to about $200 billion) and services (IT services, knowledge-based services, facilities upkeep, weapons system maintenance, transportation, etc., amounting to about another $200 billion). We estimate that the efficiencies targeted by this Guidance can make a significant contribution to achieving the $100 billion redirection of defense budget dollars from unproductive to more productive purposes that is sought by Secretary Gates and Deputy Secretary Lynn over the next five years.

Since June, the senior leadership of the acquisition community – the Component Acquisition Executives (CAEs), senior logisticians and systems command leaders, OSD officials, and program executive officers (PEOs) and program managers (PMs) – has been meeting regularly with me to inform and craft this Guidance. We have analyzed data on the Department's practices, expenditures, and outcomes and examined various options for changing our practices. We have sought to base the specific actions I am directing today on the best data the Department has available to it. In some cases, however, this data is very limited. In these cases, the Guidance makes provision for future adjustments as experience and data accumulate so that unintended consequences can be detected and mitigated. We have conducted some preliminary estimates of the dollar savings anticipated from each action based on reasonable and gradual, but steady and determined, progress against a clear goal and confirmed that they can indeed be substantial.

Changing our business practices will require the continued close involvement of others. We have sought out the best ideas and initiatives from industry, many of which have been adopted in this Guidance. We have also sought the input of outside experts with decades of experience in defense acquisition.

- On 14 Sep 10, USD AT&L promulgated sweeping acquisition Guidance through this "Memorandum for Acquisition Professionals" and signed out directive memoranda to his key staff elements
- Memo follows Dr. Carter's 28 June 10 memo describing a mandate to deliver better value to the taxpayer and warfighter by improving the way the Department does business; and contains specific Guidance for achieving the 28 June mandate
- Secretary Gates and Dr. Carter announced guidance at a 14 Sep 10 press conference
- Guidance memo, press conference video & additional information related to the initiatives available at https://dap.dau.mil/Pages/NewsCenter.aspx?aid=108

Better Buying Power – USD AT&L 14 Sep 2010 Memo

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Why this effort and why now?

"There is every reason to believe the efficiencies we are seeking can be realized. It has taken years for excessive costs and unproductive overhead to creep into our business practices, but over the coming years we can surely work them out again.

"Those who hesitate to go down the road of great efficiency must consider the alternative: broken or cancelled programs, budget turbulence, uncertainty and unpredictability for industry, erosion of taxpayer confidence that they are getting value for their defense dollar, and above all, lost capability for the warfighter in a dangerous world. Not only can we succeed: we must."

Better Buying Power – USD AT&L 14 Sep 2010 Memo

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Five "High Grounds"

- **Target Affordability and Cost Growth**
- **Incentivize Productivity and Innovation In Industry**
- **Promote Real Competition**
- **Improve Tradecraft in Services Acquisition**
- **Reduce Non-Productive Processes and Bureaucracy**

Guidance Roadmap

Target Affordability and Control Cost Growth

- **Mandate affordability as a requirement**
  - At Milestone A set affordability target as a Key Performance Parameter
  - At Milestone B establish engineering trades showing how each key design feature affects the target cost
- Drive productivity growth through Will Cost/Should Cost management
- Eliminate redundancy within warfighter portfolios
- Make production rates economical and hold them stable
- Set shorter program timelines and manage to them

Incentivize Productivity & Innovation in Industry

- **Reward contractors for successful supply chain and indirect expense management**
- Increase the use of FPIF contract type where appropriate using a 50/50 share line and 120 percent ceiling as a point of departure
- Adjust progress payments to incentivize performance
- Extend the Navy's Preferred Supplier Program to a DoD-wide pilot
- Reinvigorate industry's independent research and development and protect the defense technology base

Promote Real Competition

- Present a competitive strategy at each program milestone
- **Remove obstacles to competition**
  - Allow reasonable time to bid
  - Require non-certified cost and pricing data on single offers
  - **Require open system architectures and set rules for acquisition of technical data rights**
- Increase dynamic small business role in defense marketplace competition

Improve Tradecraft in Services Acquisition

- Create a senior manager for acquisition of services in each component, following the Air Force's example
- Adopt uniform taxonomy for different types of services
- **Address causes of poor tradecraft in services acquisition**
  - Assist users of services to define requirements and prevent creep via requirements templates
  - Assist users of services to conduct market research to support competition and pricing
  - **Enhance competition by requiring more frequent re-compete of knowledge-based services**
  - Limit the use of time and materials and award fee contracts for services
  - Require that services contracts exceeding $1B contain cost efficiency objectives
- Increase small business participation in providing services

Reduce Non-Productive Processes and Bureaucracy

- Reduce the number of OSD-level reviews to those necessary to support major investment decisions or to uncover and respond to significant program execution issues
- Eliminate low-value-added statutory processes
- Reduce by half the volume and cost of internal and congressional reports
- Reduce non-value-added overhead imposed on industry
- Align DCMA and DCAA processes to ensure work is complementary
- Increase use of Forward Pricing Rate Recommendations (FPRRs) to reduce administrative costs

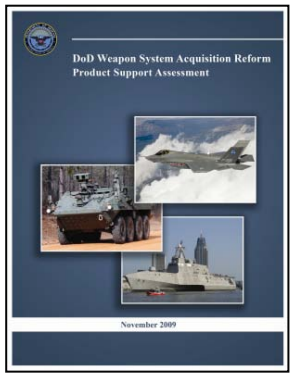
Direct Applicability to LCM, LCC Optimization, Product Support Strategies

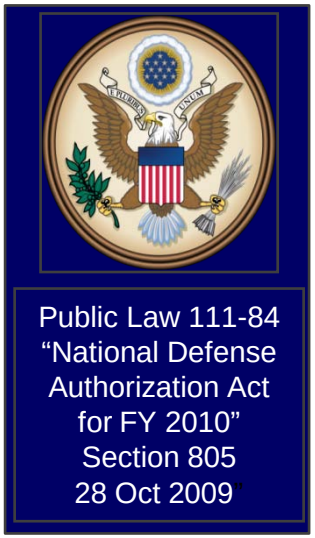
Section II – Product Support Initiatives

- DoD Weapon System Acquisition Reform: Product Support Assessment (PSA)
- Performance Based Life Cycle Product Support (PBL)

Major Additional New Initiatives

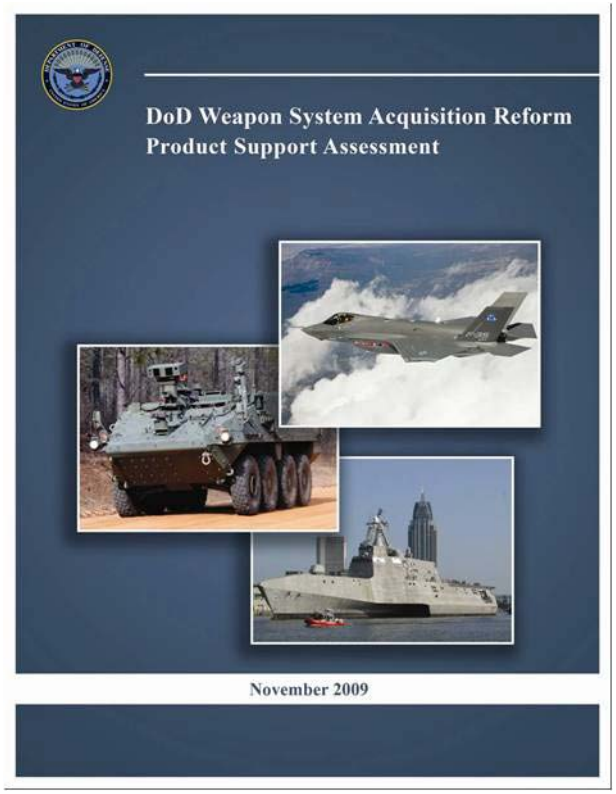
- **"DoD Weapon System Product Support Assessment: Shaping Next Generation Life Cycle Sustainment" - USD(AT&L) Nov 09**
  - **"Aligned and synchronized operational, acquisition, and sustainment communities working together to deliver required and affordable warfighter outcomes"**
  - **Focus on "Life Cycle Product Support" strategies, policies, processes, and resources in eight key areas**
  - **New weapon system sustainment business model – a game changer**
  - **Series of Major Implementation Initiatives Underway**
- **Sec 805 of FY10 NDAA (Public Law 111-84) Oct 09**
  - **Tasks DoD "to issue comprehensive guidance on life-cycle management and the development and implementation of product support strategies for major weapon systems."**
  - **Establishes a new Product Support Manager (PSM): "The Secretary of Defense shall require that each major weapon system be supported by a product support manager…"**





DoD Product Support Assessment

Report Available at https://acc.dau.mil/psa



Purpose

- **Recommends to senior leadership improvement of existing weapon system sustainment strategy**
- **Encompasses operational, acquisition, and sustainment communities**
- **Complements Weapon System Acquisition Reform Act with perspectives attentive to life cycle management and sustainment**
- **Provides recommendations to improve weapon system readiness and control life cycle cost**
- **Important reference for new PSMs**

- ✓ ***DoD Senior Steering Group strongly endorsed report and way ahead***
- ✓ ***Final report signed by USD(AT&L) on November 12, 2009***
- ✓ ***Implementation actions underway***

2009 DoD Weapon System Acquisition Reform: Product Support Assessment (PSA) Key Focus Areas

Defense Acquisition University

Product Support Business Model:

Provide Program Managers a model template for a weapon system support strategy that drives cost-effective performance and capability for the Warfighter across the weapon system life cycle and enables most advantageous use of an integrated defense industrial base

Industrial Integration Strategy:

Align and expand the collaboration between Government & Industry that produces best value partnering practices

Supply Chain Operational Strategy:

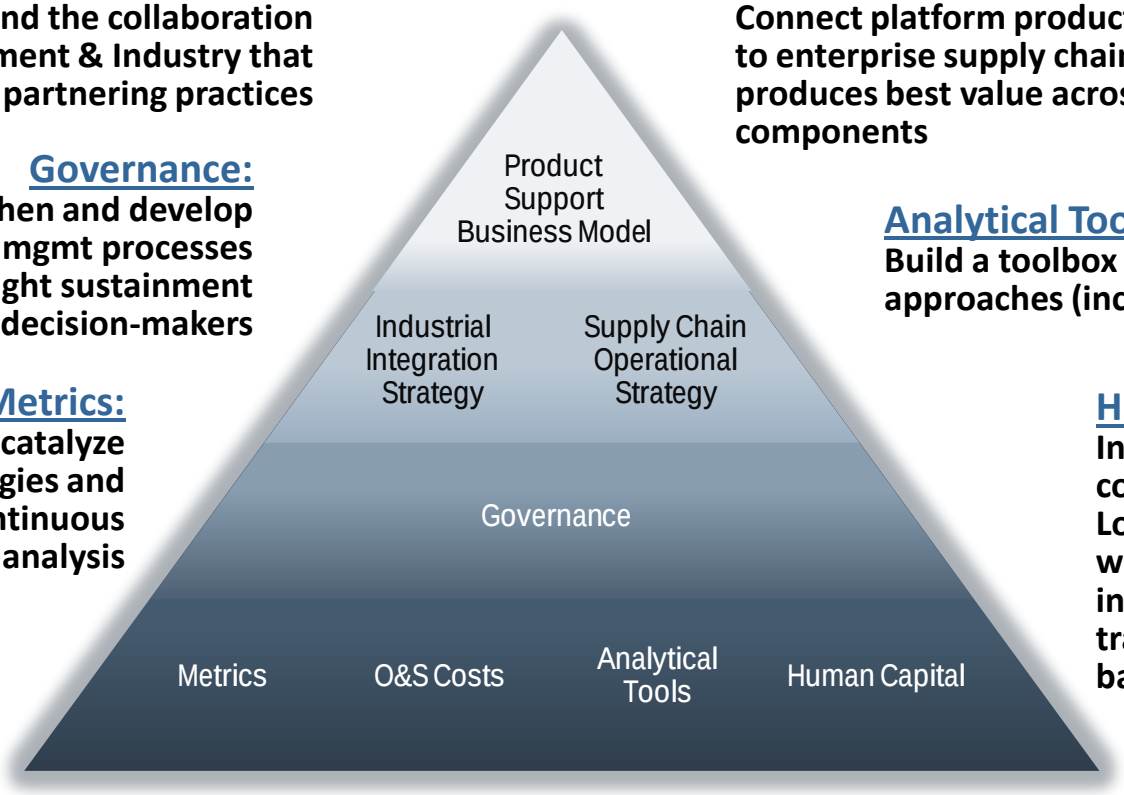
Connect platform product support strategies to enterprise supply chain approaches that produces best value across the DoD components

Governance:

Strengthen and develop organization and mgmt processes to deliver the right sustainment information to decision-makers

Analytical Tools:

Build a toolbox of analytical approaches (including BCA)



Metrics:

Use existing metrics to catalyze sustainment strategies and trigger continuous supportability analysis

Human Capital:

Integrate Product Support competencies across the Logistics and Acquisition workforce domain to institutionalize successful traits of an outcome-based culture

O&S Costs:

Improve O&S cost visibility and influence

Weapons System Data:

Define, collect, report, and manage the data we need to drive effective Life Cycle Product Support

Product Support Assessment Recommendations: Next Generation Product Support Business Model

Adopt a "Product Support Business Model" that drives cost-effective performance and capability across the weapon system life cycle and enables the most advantageous use of an integrated defense industrial base

1. **Be *outcome-based* across the defense industrial base**
2. ***Improve PBL Implementation***
3. **Provide *flexibility to address unique requirements* with a tool box of options**
4. **Be *fact-based* supported by weapon system data**
5. **Identify *what needs to be done*, the standard of performance, and provide a framework for identifying *who should perform* each function**
6. **Expand the use of *partnering***
7. **Facilitates *enterprise performance* focus, coupled with program performance, when designing program product support solutions**

Although Policies & Processes are Evolving, DoD Commitment to PBL is Clear

- **DoD Directive 5000.1 (May 2003)**

Total Systems Approach. ***The PM shall be the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment.***

Performance-Based Logistics. ***PMs shall develop & implement performance-based logistics strategies that optimize total system availability while minimizing cost and logistics footprint.***

- **DoD Instruction 5000.02 (Dec 2008)**

Performance-Based Life-Cycle Product Support. ***The PM shall employ effective Performance-Based Life-Cycle Product Support (PBL) planning, development, implementation & management. Performance-Based Life-Cycle Product Support represents the latest evolution of Performance Based Logistics. Both can be referred to as "PBL".***

Performance-Based Life-Cycle Product Support. ***PBL offers the best strategic approach for delivering required life cycle readiness, reliability, and ownership costs. Sources of support may be organic, commercial, or a combination…***

Range of Product Support Solutions Addresses Enterprise Portfolio

Weapons System Strategy

	Industry Capabilities	Partnerships	Organic Capabilities
Platform	***1.1*** ***Industry-Centric Platform Strategy*** *(Example: C-12 Huron)*	***1.2*** ***Blended DoD-Industry Platform Strategy*** *(Example: C-17)*	***1.3*** ***DoD-Centric Platform Strategy*** *(Example: Common Ground System)*
Subsystem	***2.1*** ***Industry-Centric Subsystem Strategy*** *(Example: HIMARS)*	***2.2*** ***Blended DoD-Industry Subsystem Strategy*** *(Example: APU)*	***2.3*** ***DoD-Centric Subsystem Strategy*** *(Example: M119-A2 Howitzer)*
Component	***3.1*** ***Industry-Centric Component Strategy*** *(Example: Military Tires)*	***3.2*** ***Blended DoD-Industry Component Strategy*** *(Example: USAF IPV)*	***3.3*** ***DoD-Centric Component Strategy*** *(Example: War Reserve, Contingency Stock)*

Integration Strategy

Analysis of Weapon Systems Programs Supports targeting Performance Based Partnerships – an "Integrated Industrial Base"

A wider range of Industry-to-organic as well as Component-to-Platform enables you to take an Enterprise, Life Cycle Perspective

So What Exactly is PBL?

- **Performance Based Logistics = Performance Based Life Cycle Product Support (PBL)**
- **A LCM implementation strategy**
- **An outcome-based product support strategy that plans and delivers an integrated, affordable performance solution designed to optimize system readiness**
- **Establishes performance goals for a weapon system through a support structure**
- **Based on long-term performance agreements with clear lines of authority and responsibility to continuously meet the users needs**
- ***Recommended Reading*: Oct 09 Defense ARJ Article "What PBL is and What it is Not; and What it Can and Cannot Do"** http://www.dau.mil/pubscats/PubsCats/Kobren.pdf

Focuses system support on what's important to the war fighter: capability and performance

Fundamental PBL Tenets

- Produce **OUTCOMES**, not OUTPUTS!
- **Performance as a package**, vice transactional goods and services
- Document performance, support, & resource requirements in **Performance Based Agreements** (PBA)
- Establish **Product Support Integrator (PSI)** to integrate & manage all (contract and organic) sources of support
- Establish **incentives** to promote "win-win" relationships and achievement of performance outcomes
- Leverage **Public-Private Partnerships** to make best use of organic and commercial capabilities in long-term collaborative relationships

PBL is NOT Outsourcing – it "is not synonymous with CLS nor does it require a private sector integrator" (AFI 63-107)

Why PBL Works

- **DoD obtains comprehensive performance package**
  - **Not individual parts, transactions, or "spares & repairs"**
- **Approach totally reverses vendor incentive**
  - **Fixed price "pay for performance" contracts motivate vendor to reduce failures/ consumption**
  - **Incentivizes "less I use, the more profit I can make" vice a "more spares and repairs I can sell, the more profit I can make" mentality**
  - **Long term commitment enables vendor to balance risk vs. investment**
- **Improves Parts Support**
  - **Material availability increases + Logistics Response Time (LRT) decreases resulting in Improved Readiness**
- **Optimizes Depot Efficiency**
  - **Repair Turn Around Time (RTAT), Awaiting Parts (AWP), & Work in Process (WIP) decrease**
- **Incentive to Invest in Reliability**
  - **Mean Time Between Failure (MTBF) improves**
- **Incentive to Invest in DMSMS & Obsolescence Mitigation, Improve Repair Processes, Reduce Costs, and Support the Warfighter**

Focus on the Performance "End-State" … NOT the "How To"

PBL Guidance Evolution, 1998-2011

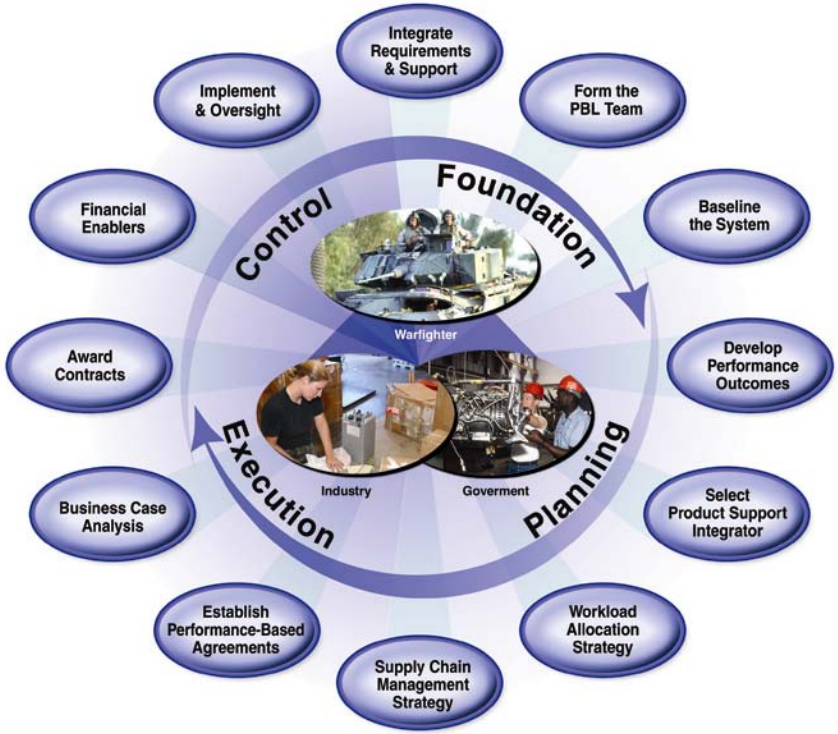
- **Fiscal Year 1998 Section 912(c) of the National Defense Authorization Act**
- **"Secretary of Defense Report to Congress: Actions to Accelerate the Movement to the New Workforce Vision" in Response to Section 912(c) of the NDAA for FY 1998 *(Apr 98)***
- **Product Support for the 21st Century: Report of the Department of Defense (DoD) Product Support Reengineering Implementation Team *Section 912(c)* *(Jul 99)***
- **Product Support for the 21st Century: A Year Later *(Sep 00)***
- **Product Support for the 21st Century: A Program Manager's Guide to Buying Performance *(Nov 01)***
- **DoDD 5000.01 Defense Acquisition System *(May 2003)* and DoDI 5000.2 Operation of the Defense Acquisition System *(May 03)***
- **Defense Acquisition Guidebook (DAG), Chapter 5 *(2004 & After)***
- **Performance Based Logistics: A Program Manager's Product Support Guide *(Mar 05)***
- **DoDI 5000.02 Operation of Defense Acquisition System *(Dec 08)***
- **DoD Weapon System Acquisition Reform: Product Support Assessment (PSA) *(Nov 09)***
- **Product Support Manager's (PSM) Guidebook *(PSA: FY11)***
- **Business Case Analysis (BCA) Guidebook *(PSA: FY11)***
- **Life Cycle Logistics Guidebook *(PSA: FY11)***

Department of Defense PBL Award Winners

Year	Level	Program	Service	Commercial Partner
2005	System	F-117	USAF	Lockheed Martin
	Sub-System	F-404 Engine	USN	General Electric
	Component	Navy APU	USN	Honeywell
	Special GWOT	Shadow 200 Tactical UAS	USA	AAI
2006	System	HIMARS	USA	Lockheed Martin
	Sub-System	H-60 FLIR	USN	Raytheon
	Component	F/A-18 & F-14D Cockpit Displays	USN	Rockwell
2007	System	F/A-18 (FIRST)	USN	Boeing
	Sub-System	ITAS	USA	Raytheon
	Component	GE T700 Engine	USN	General Electric
2008	System	F-22	USAF	Lockheed Martin
	Sub-System	ARL-67 Radar Warning System	USN	Raytheon
	Component	TAIS ATC System	USA	General Dynamics
2009	System	CASS	USN	Lockheed Martin
	System	HIMARS	USA	Lockheed Martin
	Sub-System	AN/ALQ-126B ECS	USN	BAE Systems
	Sub-System	F-404 Synchronized Supply Chain	DLA	General Electric
	Component	AN/UYQ-70(V) Display System	USN	Lockheed Martin
2010	System	Shadow Tactical Unmanned Aircraft System	USA	AAI
	Subsystem	AH-64D Apache	USA	Boeing
	Component	H-46 Sea Knight / H-53 Sea Stallion APU	USN	Hamilton Sunstrand

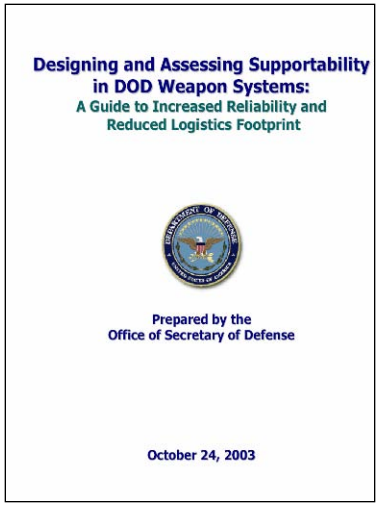
Current DAU PBL Learning Resources

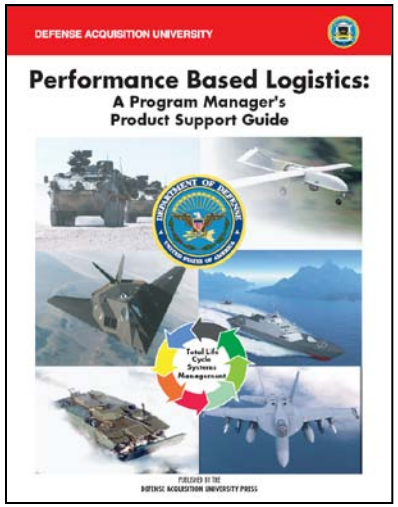
Twelve-Step DoD
PBL Implementation Model



Available Online at
https://acc.dau.mil/pbl

- PBL Guide
- Supportability Guide
- PBL Online Toolkit
- PBL Road Shows
- PBL Mission Assist
- LOG 235 & 236 PBL Courses
- CLL011 PBL & CLL015 BCA





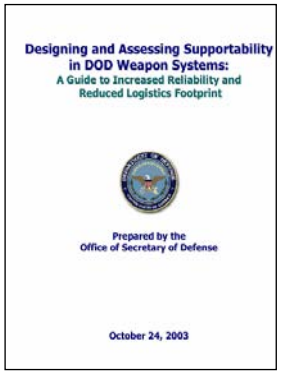
Current Articles on the Subject of PBL

- **"*Misunderstood Superheroes*" (Defense AT&L Magazine, January-February 2009**) http://www.dau.mil/pubscats/PubsCats/atl/jan-feb09.pdf
- **"*What Performance Based Logistics is and What it is Not—And What it Can and Cannot Do*" (Defense Acquisition Review Journal, October 2009)** http://www.dau.mil/pubscats/PubsCats/Kobren.pdf
- **"*The Future of Product Support*" (Defense AT&L Magazine, March-April 2010)** http://www.dau.mil/pubscats/ATL%20Docs/Mar-Apr10/fowler_mar-apr10.pdf
- ***How Much Will Sustainment Change?"* (Military Logistics Forum, September 2010)** http://www.military-logistics-forum.com/military-logistics-forum/272-mlf-2010-volume-4-issue-8-september/3351-how-much-will-sustainment-change.html
- **"*Performance-Based Life Cycle Product Support (PBL) Strategies: Enablers for More Effective Government Participation*" (Defense Acquisition Review Journal, October 2010)** http://www.dau.mil/pubscats/Pages/ARJ.asp

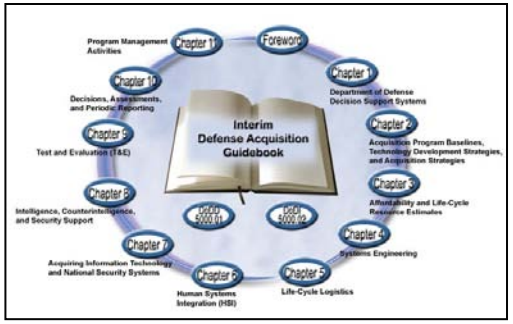
PBL Reference Evolution in FY11

Existing Twelve-Step PBL Implementation Model will be replaced by new DoD Product Support Strategy Process Model

Existing 2005 DoD "Performance Based Logistics: A Program Manager's Product Support Guide " will be replaced by a new DoD Product Support Manager (PSM) Manual



Existing 2003"Designing & Assessing Supportability in DoD Weapon Systems" Guidebook will be incorporated into Defense Acquisition Guidebook (DAG) Chapter 5



New *DoD Product Support Strategy Process Model* from DRAFT PSM Guidebook

New PSM Guidebook Objectives

- **Provide a philosophy and a process for executing product support strategies and making weapon system life-cycle decisions**
- **Define a common and consistent product support language and define key organizational roles and responsibilities**
- **Ensure a consistent approach to enterprise level supply chain considerations as well as cost and performance measurement concerns**
- **Use (provide) DoD guidance on business case analysis that specifies comparison criteria and standards**

Focus on the Product Support Manager

PSM Guidebook Structure

Introduction
- Background
- Purpose
- Major tasks of the PSM
- Relationship to Policy and Other Guidance

Product Support Business Model
- Product Support Business Model Overview
- PSM, PSI, PSP Roles and Responsibilities
- Product Support Agreements
- Product Support Strategy and Implementation

Life-Cycle Management Tools
- Sustainment Readiness Levels
- Independent Logistics Assessments
- Metrics
- Enterprise Synergies and IPS Elements
- Business and Variance Analysis
- Supply Chain Management
- LCSP
- Product Support Package Update
- Funding Alignment

Developing or Transitioning to a New Product Support Strategy

Sustainment in the Life-Cycle Phases
- Materiel Solution Analysis
- Technology Development
- Engineering and Manufacturing Development
- Production and Deployment
- Operations and Support

Appendices

- **Organized into five sections and appendices**
  - First part of the Guidebook is focused on philosophy and process
  - The second part focuses on time phased activities

New Ideas

The Product Support Manager Guidebook introduces a number of new (or repurposed) ideas or updates existing ones and brings them together in one document:

- **Product Support Manager**
- **Product Support Business Model (PSBM)**
- **Integrated Product Support Elements**
- **Sustainment Readiness Levels**
- **Joint Supply Chain Architecture Framework (JSCA)**

Estimated PSM Guidebook Availability by Early 2011

The PSM Guidebook Bridges Product Support Strategy Guidance & Execution

	A	B	C	IOC	FOC
Life Cycle Phase *Policy(When do I do something?)*	Material Solution Analysis	Technology Development	Engineering & Manufacturing Development	Production & Deployment	Operations & Support

SRLs *(What should I do?)*	SRL 1-3	SRL 4	SRL 5	SRL 6	SRL 7	SRL 8	SRL 9	SRL 10	SRL 11	SRL 12
PSM Guidebook *(How do I do it?)*	Integrated Product Support Elements									
	Guidance on tasks that must be performed, capabilities to be developed, and analyses to be conducted to manage product support									

Life Cycle Sustainment Plan *(What is the best value solution?)*	Document describing how product support will be developed and implemented, including how tasks identified in the PSM Guidebook will be completed over the weapon system life cycle and who will complete those tasks
LHA / ILA / Other Reviews *(How am I doing?)*	Assessment of the LCSP's quality, execution, and effectiveness

Note:
- LHA = Logistics Health Assessment
- LA = Independent Logistics Assessment
- SRLs = Sustainment Readiness Levels

This Bridge is Through Describing the PSBM and Execution Mechanisms

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Frames the product support discussion & puts the document in context

Delineates roles and responsibilities, product support relationships, and codification of those relationships

Describes major product support activities and tools that the PSM manages or uses to drive sustainment outcomes

Provides a 12-step process for developing and implementing a product support strategy

Provides phase specific guidance on using select life-cycle management tools and activities

The Guidebook Describes the Product Support Business Model Characteristics

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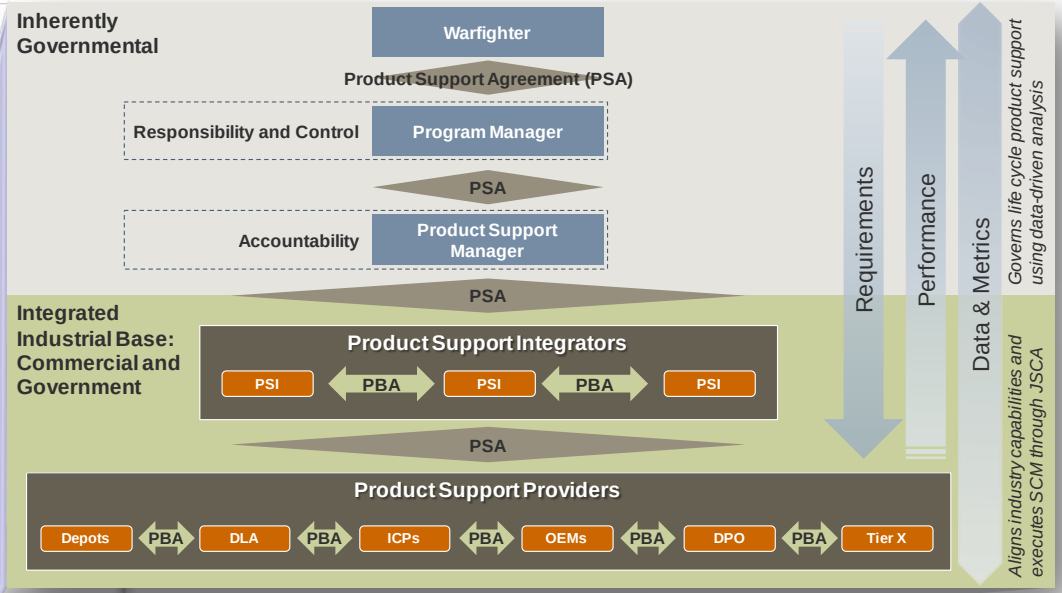
Appendices



Relationships, requirements, and management tools are combined to integrate product support stakeholders and activities

The 12-Step Product Support Strategy Process Enables Sustainment Execution

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Appendices

This process should be used throughout the life-cycle of a weapon system

Sustainment in the Life-Cycle Phases

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Appendices

Sustainment in the Life-Cycle Phases Sections
- Overview
- Sustainment Readiness Levels in the XXX Phase
- Key Documents
- Major Activities
  - Enterprise Synergies, IPS Element Trades, and Key Relationships
  - Business and Variance Analysis
  - Supply Chain Management
  - LCSP and Product Support Package Update
  - Funding Alignment
- Life-Cycle Phase Checklist

Each phase has guidance tailored to the specific activities and relative program maturity of that phase

Integrated Product Support (IPS) Elements

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Appendices

Integrated Product Support Elements

- ❑ **Product Support Management**
- ❑ **Design Interface**
- ❑ **Sustaining Engineering**
- ❑ **Supply Support**
- ❑ **Maintenance Planning and Management**
- ❑ **Packaging, Handling, Storage, and Transportation (PHS&T)**
- ❑ **Technical Data**
- ❑ **Support Equipment**
- ❑ **Training & Training Support**
- ❑ **Manpower and Personnel**
- ❑ **Facilities & Infrastructure**
- ❑ **Computer Resources**

These add Product Support Management to the typical Integrated Logistics Support elements

Appendices Provide Additional Details on Subjects Discussed Throughout the Guide

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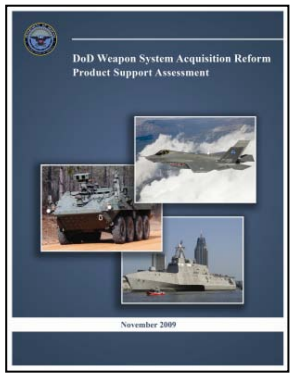
Appendices
- **Integrated Product Support (IPS) Elements**
- **Typical Supporting Performance Metrics**
- **Product Support Agreement Types**
- **Funding Alignment Example**
- **Using the Integrated Logistics Assessment (ILA) as a Product Support Management Tool**
- **ILA Handbook**
- **Sustainment Readiness Levels**
- **Sustainment Chart Usage Instructions**
- **Product Support Strategy Process "Fold-out"**
- **JSCA Supply Chain Management Metrics**
- **Key Product Support Considerations**
- **Key References and Resources for the PSM**
- **List of Acronyms and Glossary**

Section III – Product Support Manager (PSM)

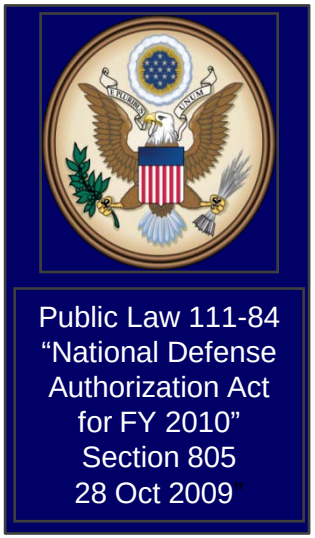
- Public Law 111-84, Section 805 & PSM Policies
- PSM Professional Development
- PSM Roles, Responsibilities, Expectations
- PSM Resources & Enablers

Major Additional New Initiatives

- "DoD Weapon System Product Support Assessment: Shaping Next Generation Life Cycle Sustainment" - USD(AT&L) Nov 09
  - "Aligned and synchronized operational, acquisition, and sustainment communities working together to deliver required and affordable warfighter outcomes"
  - Focus on "Life Cycle Product Support" strategies, policies, processes, and resources in eight key areas
  - New weapon system sustainment business model – a game changer
  - Series of Major Implementation Initiatives Underway



- **Sec 805 of FY10 NDAA (Public Law 111-84) Oct 09**
  - **Tasks DoD "to issue comprehensive guidance on life-cycle management and the development and implementation of product support strategies for major weapon systems."**
  - **Establishes a new Product Support Manager (PSM): "The Secretary of Defense shall require that each major weapon system be supported by a product support manager…"**



FY10 NDAA Section 805 Product Support Manager (PSM)

- **Congress passed, and President Obama signed FY10 National Defense Authorization Act (NDAA) into law (Public Law 111-84), Oct 2009**
- **The legislation contained a provision in Sec 805 entitled "Life Cycle Management and Product Support" requires:**
  - **the Secretary of Defense issue comprehensive guidance on life-cycle management and development/implementation of product support strategies for major weapon systems;**
  - **each major weapon system be supported by a product support manager (PSM); and**
  - **each PSM position be performed by a properly qualified member of the armed forces or full-time employee of the Department of Defense**

"The Secretary of Defense shall require that each major weapon system be supported by a product support manager…" to "maximize value to the Department of Defense by providing the best possible product support outcomes at the lowest operations and support cost." -- *FY10 NDAA, Section 805*

PL 111-84 Sec 805 PSM Responsibilities

PSM References & Resources: https://acc.dau.mil/psm

- **A product support manager for a major weapon system shall-**
  - **develop and implement a comprehensive product support strategy for the weapon system;**
  - **conduct appropriate cost analyses to validate the product support strategy, including cost-benefit analyses as outlined in Office of Management and Budget Circular A-94;**
  - **assure achievement of desired product support outcomes through development and implementation of appropriate product support arrangements;**
  - **adjust performance requirements and resource allocations across product support integrators and product support providers as necessary to optimize implementation of the product support strategy;**
  - **periodically review product support arrangements between the product support integrators and product support providers to ensure the arrangements are consistent with the overall product support strategy; and**
  - **prior to each change in the product support strategy or every five years, whichever occurs first, revalidate any business-case analysis performed in support of the product support strategy.**

PL 111-84 Sec 805 Report Language

- "Product support" encompasses all critical functions related to weapon-system readiness, including materiel management, distribution, technical data management, maintenance, training, cataloging, configuration management, engineering support, repair parts management, failure reporting and analyses, and reliability growth.
- Included within logistics and sustainment functions are the tasks normally performed as part of the logistics support required for a major weapon system that are designed to focus on such metrics as readiness, reliability, availability, mean down time, customer wait time, footprint reduction, and reduced ownership costs.
- The conferees note that in implementation of this provision, the positions of product support manager, assistant program manager for logistics, deputy program manager for logistics, and system support manager shall be considered synonymous.
- The conferees emphasize that the product support manager is a separate position from the program manager with distinct responsibilities.
- Additionally, the conferees in no way intend to limit DOD from establishing product support managers and comprehensive product support strategies for other acquisition programs that are not designated major weapon systems as defined by section 2302d of title 10, United States Code

Section 805 – What's Different?

- ***Haven't we always had Product Support Managers? Yes, but this particular legislation…***
  - **Establishes accountable & responsible manager**
  - **Strengthens PM Life Cycle Management authority**
  - **Builds a better Life Cycle Logistics human capital asset while articulating a more clear career path**
  - **More respect for an integral program management position (front-line)**
  - **Potential for many key roles and responsibilities to be performed better**
  - **More attentive to enterprise approaches & considerations, including FMS**
  - **Articulates inherently governmental authorities**
  - **Advances outcome-based product support strategies**

Benefits of PL 111-84, Sec 805

- Focuses on desired performance outcomes
- Enhances DoD weapon system product support
- Potential for decreased life cycle product support costs
- Key leadership support to the Program Manager (PM)
- Facilitates Life Cycle Management (LCM)
- Clearly delineates inherently governmental product support functions
- Helps achieve long-term best value outcomes
- Establishes clearer lines of authority
- Clearly articulates roles and responsibilities
- Standardizes product support terminology
- Further Integrates acquisition and sustainment
- PSM required to be KLP for MDAPs and CAP for all other major weapons systems
- Identifies the LCSP as vehicle to document product support strategy
- Includes use of analytical tools (including BCAs) to support sustainment strategy decisions
- Enhances enterprise opportunities
- Ties directly to new product support business model
- Product Support Integrator/Product Support Provider selection based on best value
- Greater post- IOC visibility

What does this Really Mean?

- It's All About the Warfighter and National Security
- Product Support is Broader than Logistics
- Congress/DoD Serious about Life Cycle Management
- Applicability beyond MDAPs
- Better Managed Weapon System Support
- PBL as a Key Product Support Strategy is Enhanced
- Government and Industry Roles Clarified
- PM-PSM Relationship Better Understood
- More Clearly Articulated Expectations

"Product support, also referred to as system sustainment, is the package of support functions required to maintain the readiness and operational capability of weapon systems, subsystems, software, and support systems." – DoD WSAR Product Support Assessment

Potential Section 805 PSM Benefits

- Greater Focus on Desired Performance-Based Outcomes
- Life Cycle Cost Containment
- Supports the Program Manager (PM)
- Facilitates Life Cycle Management
- Clearly Delineates Inherently Governmental Functions
- Helps Achieve Long-Term Best Value Outcomes
- Establishes Clear Lines of Authority
- Clearly Articulates Roles and Responsibilities
- Standardizes Terminology
- Encourages Development of Appropriately Rigorous, Targeted Training
- Further Integrates Acquisition and Sustainment

Defense Acquisition Guidebook (DAG) Chapter 5, Para 5.1.3.2

- **The day-to-day oversight and management of the product support functions are delegated to a product support manager who leads the development and implementation of the performance-based product support strategy and ensures achievement of desired support outcomes**
- **The PSM, while remaining accountable for system performance, can delegate responsibility for delivering specific outcomes. In doing so, the PM and PSM may employ any number of sub system PSMs or product support integrators to integrate support from all support sources to achieve the performance outcomes specified in a PBA…**
- **The PSM is responsible for accomplishing the overall integration of product support either directly through government activities or via a contract when commercial organizations are involved**

Need to Be Clear What Product Support Is

- Product Support is defined as "the application of the package of integrated logistics elements and support functions necessary to sustain the readiness and operational capability of the system. While it varies by organization typically, the product support package (PSP) includes the logistics elements..." *(DAG Paragraphs 5.1.1.1. & 5.1.3.2)*
  - *Note: The traditional ten logistics elements will evolve as part of the Product Support Assessment into 12 Integrated Product Support (IPS) Elements depicted on the next page*

KEY PSM RESPONSIBILITY: INTEGRATED PRODUCT SUPPORT

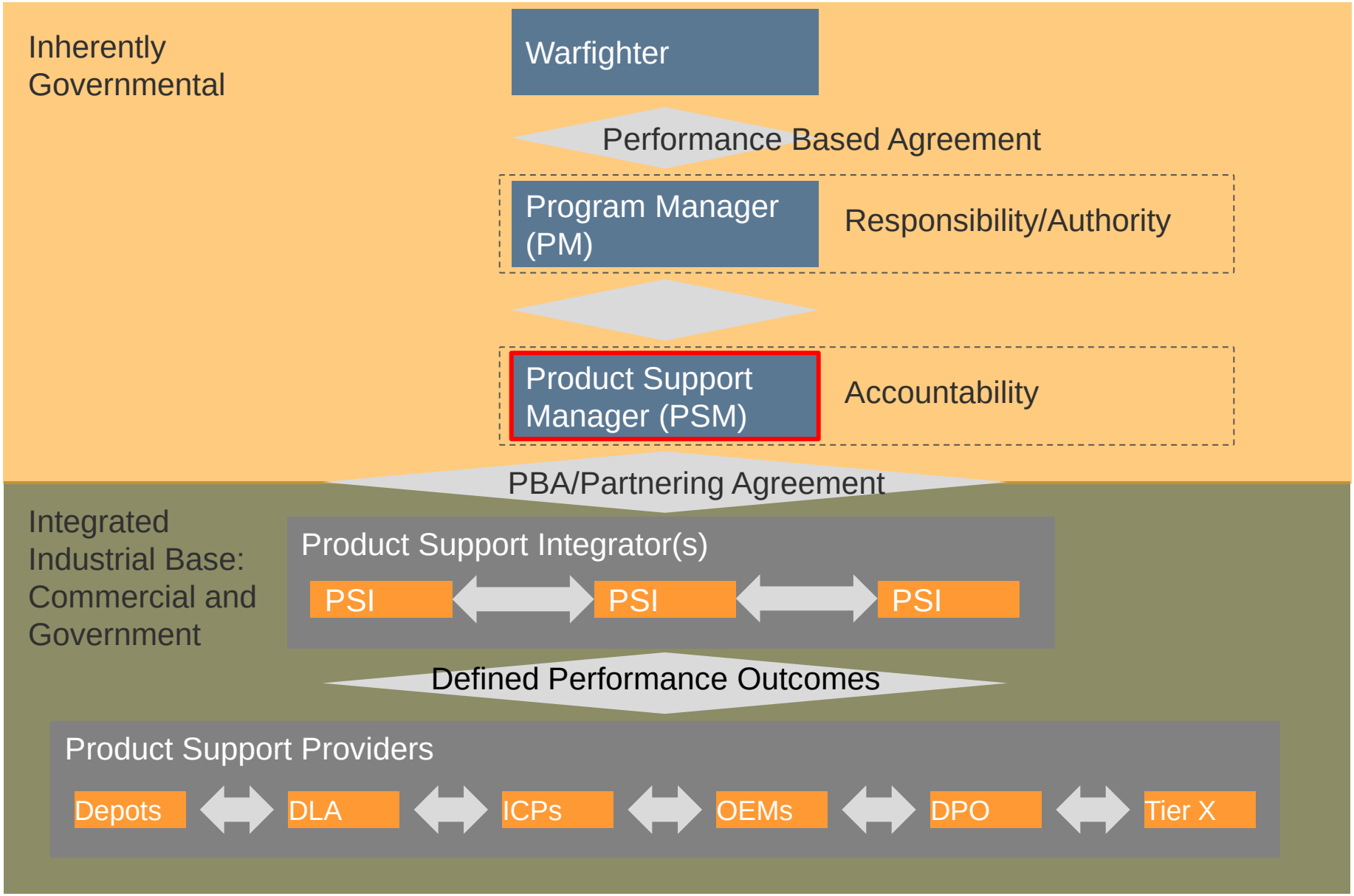
Design Interface

- Sustaining Engineering
- Supply Support
- Maintenance Planning & Management
- Packaging, Handling, Storage &Transportation (PHS&T)
- Technical Data
- Support Equipment
- Training & Training Support
- Manpower & Personnel
- Facilities & Infrastructure
- Computer Resources

Product Support Management

Product Support is enabled by a package of 12 Integrated Product Support (IPS) Elements designed to deliver system readiness & availability while optimizing system life cycle cost

DoD Product Support Business Model: PSM at Nexus of LCM, PBL, PSA



PSM – PSI Roles and Responsibilities

DoD Section 805 Implementation Policy

- **Sec 805 required that "SecDef shall issue comprehensive guidance on LCM and the development of Product Support strategies" (including PSM implementation guidance)**
- **Two major policy memoranda issued by USD AT&L to fulfill this statutory requirement:**
  - **USD AT&L memo "Government Performance of Critical Acquisition Functions" *(Issued 25 Aug 10)***
  - **USD AT&L Directive-Type Memorandum (DTM) 10-015 "Requirements for Life-Cycle Management and Product Support" *(Issued 6 Oct 10)*, which requires updates within 180 days to:**
    - **DoD Instruction 5000.02 "Operation of the Defense Acquisition System"**
    - **DoD Instruction 5000.66 "Operation of the Defense Acquisition Workforce Education, Training, and Career Development Program"**
    - **Defense Acquisition Guidebook (DAG)**
    - **Defense Acquisition Workforce Career Management Manual**

USD AT&L Memo: "Government Performance of Critical Acquisition Functions" (25 Aug 10)

https://acc.dau.mil/CommunityBrowser.aspx?id=392198&lang=en-US

- **Program Lead Logistician (Product Support Manager) position designated as a Key Leadership Position (KLP) for ACAT I program positions**
- **According to this USD AT&L memorandum, "the Department is to ensure selected positions assigned to Major Defense Acquisition Programs (MDAP) and Major Automated Information System (MAIS) programs are performed by a properly qualified member of the Armed Forces or full-time employee of the Department of Defense by October 16, 2011"**
- **"The Department's implementation strategy includes establishment of Key Leadership Positions that have a significant level of responsibility & authority and are key to the success of a program or effort. The Military Departments and Defense Agencies may designate any position which meets the criteria."**
- **"However, the following have been identified as mandatory KLPs because they are identified in reference Section 820, P.L. 109-364 or have significant levels of responsibility and authority and are essential for the success of a program…(for) MDAP/MAIS positions (Acquisition Category 1 & IA when the function is required based on the phase or type of acquisition program...(including) Program Lead Logistician (Product Support Manager)."**

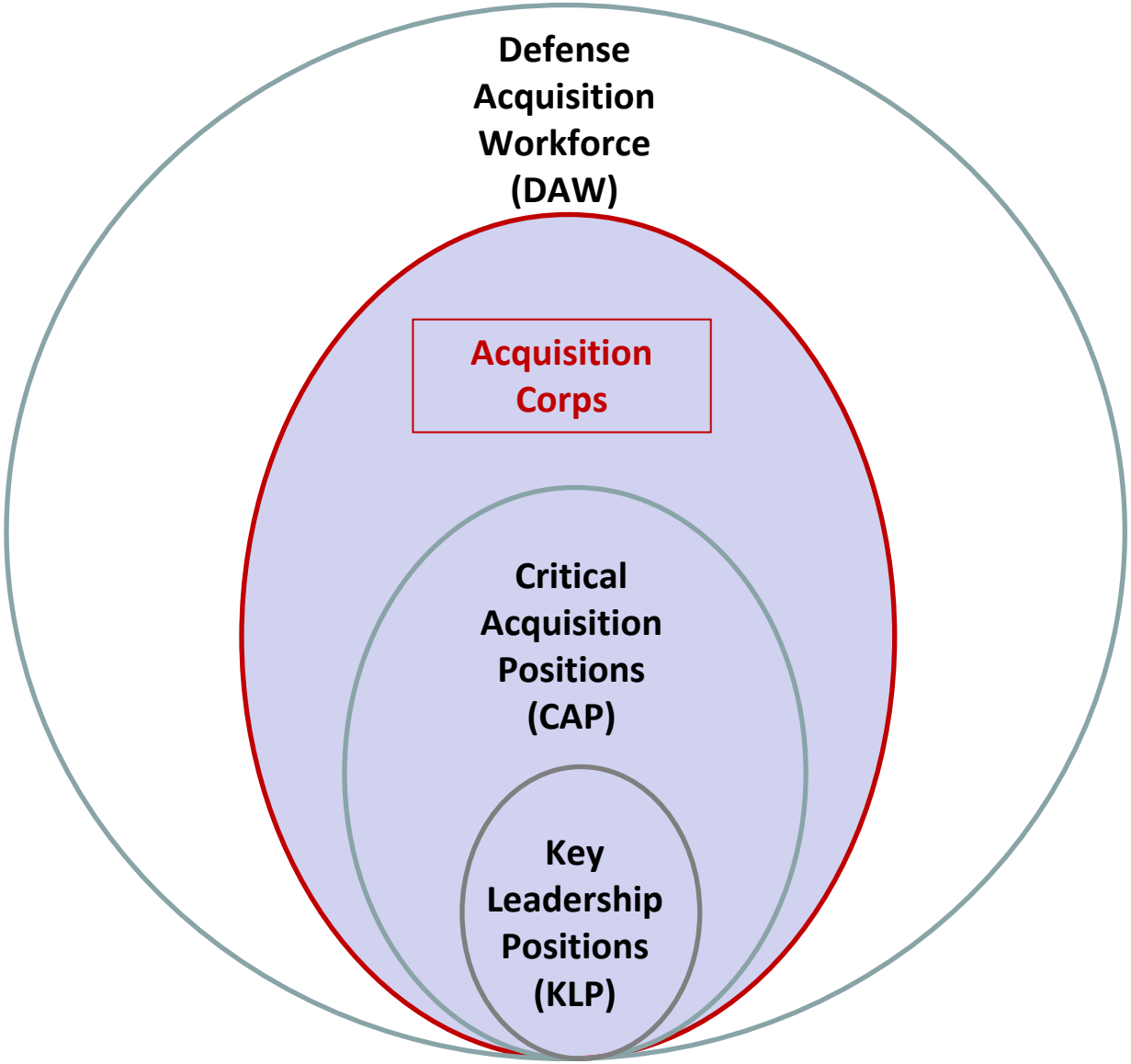
Program Lead Logistician (Product Support Manager) Identified as Mandatory Key Leadership Position (KLP) for ACAT I MDAP/MAIS positions

USD AT&L Memo: "Government Performance of Critical Acquisition Functions" (25 Aug 10) (Cont'd)

https://acc.dau.mil/CommunityBrowser.aspx?id=392198&lang=en-US

- **"In general, the "program lead" positions are expected to be filled by military members at the lieutenant colonel/colonel or commander/Navy captain levels or by the civilian equivalent"**
- **"Program leads advise the PM/DPM and may be matrixed to the program office"**
- **"Although program leads may report to a higher-level functional (i.e., command/center functional lead or his or her direct report), these positions must be designated as KLPs"**
- **"Program lead KLPs must be designated in the position category associated with the lead function. For example, "lead logistician" positions must be designated as positions in the "Life Cycle Logistics" position category."**
- **Further information on KLPs can be found in DoDD 5000.52 including:**
  - **CAPs… are senior acquisition positions specifically designated by the CAEs (Para 4.2.1.)**
  - **KLPs are selected CAPs specifically designated by the CAEs and approved by the USD (AT&L) (Para 4.2.2.)**
  - **KLPs may also include selected staff positions, as well as any CAP that, by the criticality of the duties, warrants special management attention to qualification and tenure requirements. (Para 4.2.2.3.)**

Key Leadership Positions (KLPs)



FY10 NDAA Section 805 Includes Provision Identifying Product Support Manager (PSM) as a Key Leadership Position (KLP) on ACAT I MDAP Programs

Key Leadership Positions (KLP) are a sub-set of Critical Acquisition Positions (CAP), the Acquisition Corps, & Defense Acquisition Workforce

Workforce Feedback to New Memo

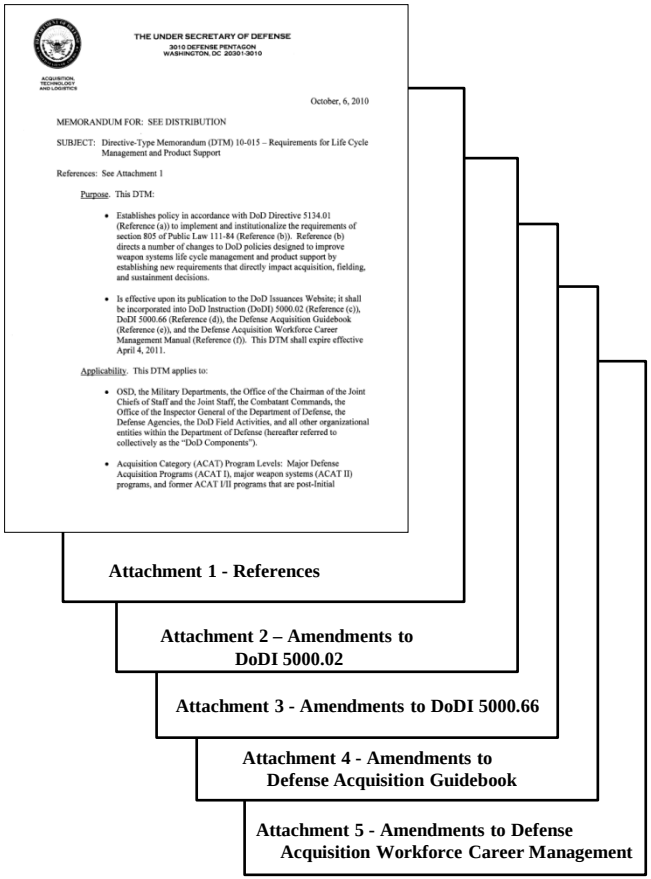
“I realize the PSM position is new and that it's way too early to tell how effective it will be. I hope the DTM and the follow-on OSD policy issuances do more than simply grant a new title to holders of the position. PSMs will need a no-kidding say over the getting and spending of money for acquisition & sustainment, how personnel are to be recruited, trained, and managed, what reports must be submitted to them to make sure they know what's going on, and so forth. Certainly not every PSM is going to get what he or she needs by force of personality. Official "clout" in the form of unambiguous policy and authority statements is a must. Otherwise the *tremendously important step* envisioned for the position is at risk.”

-- Comment posted to 26 Aug 2010
Life Cycle Logistics Director’s Blog
https://dap.dau.mil/career/log/blogs/default.aspx

Planned/Proposed Post-Level III Life Cycle Logistics PSM Training & Guidebooks

- **CLL 036 "Product Support Manager (PSM) Roles and Responsibilities" Continuous Learning Module (Deploy FY11)**
- **LOG 340 "Performance Based Life Cycle Product Support" (Deploy FY12)**
- **Embedded into Existing LOG 350 "Enterprise Life Cycle Logistics Management" Course**
- **Interdisciplinary ACQ 465 Key Leader Course (Proposed FY12-13)**
- **Post-Level III LOG 4xx PSM Course (Proposed FY12-13)**
- **Defense Acquisition Guidebook (DAG) Update (Deploy FY11)**
- **Product Support Manager's (PSM) Guide (Deploy FY11)**
- **Business Case Analysis (BCA) Guide (Deploy FY11)**
- **DAU Life Cycle Logistics Guide (Deploy FY11)**

Directive-Type Memorandum 10-015 – Requirements for Life Cycle Management & Product Support



THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

ACQUISITION, TECHNOLOGY AND LOGISTICS

October, 6, 2010

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Directive-Type Memorandum (DTM) 10-015 – Requirements for Life Cycle Management and Product Support

References: See Attachment 1

Purpose. This DTM:

- Establishes policy in accordance with DoD Directive 5134.01 (Reference (a)) to implement and institutionalize the requirements of section 805 of Public Law 111-84 (Reference (b)). Reference (b) directs a number of changes to DoD policies designed to improve weapon systems life cycle management and product support by establishing new requirements that directly impact acquisition, fielding, and sustainment decisions.
- Is effective upon its publication to the DoD Issuances Website; it shall be incorporated into DoD Instruction (DoDI) 5000.02 (Reference (c)), DoDI 5000.66 (Reference (d)), the Defense Acquisition Guidebook (Reference (e)), and the Defense Acquisition Workforce Career Management Manual (Reference (f)). This DTM shall expire effective April 4, 2011.

Applicability. This DTM applies to:

- OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the Department of Defense (hereafter referred to collectively as the "DoD Components").
- Acquisition Category (ACAT) Program Levels: Major Defense Acquisition Programs (ACAT I), major weapon systems (ACAT II) programs, and former ACAT I/II programs that are post-Initial

Attachment 1 - References

Attachment 2 – Amendments to DoDI 5000.02

Attachment 3 - Amendments to DoDI 5000.66

Attachment 4 - Amendments to Defense Acquisition Guidebook

Attachment 5 - Amendments to Defense Acquisition Workforce Career Management

- **DTM 10-015 issued by USD(AT&L) on October 6, 2010**
- **Establishes Policy to implement & institutionalize requirements of Section 805 of Public Law 111-84**
- **Applies to ACAT I & II programs, and fielded post-IOC former ACAT I & II programs**
- **Outcome-based (readiness-based) strategies at best-value costs**
- **Balanced use of DoD and industry resources via stable and robust partnerships**
- **Maximize competition, or the option of competition for long-term product support effectiveness**
- **Assist PMs in LCM responsibilities via establishment of mandatory product support manager (PSM) positions**
- **Assign properly qualified military or DoD employee to PSM positions**
- **Specifies PSM duties**

"It is DoD policy that a mandatory Product Support Manager (PSM) position shall be identified and assigned for each ACAT I and ACAT II System and filled by a properly qualified Military Service Member or full-time employee of the Department of Defense."

DTM 10-015 Applicability

- **OSD, Military Departments, Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, Combatant Commands, Office of the Inspector General of the Department of Defense, Defense Agencies, DoD Field Activities, and all other organizational entities within the Department of Defense**
- **Major Defense Acquisition Programs (ACAT I)**
- **Major weapon systems (ACAT II) programs**
- **Former ACAT I/II programs that are post-Initial Operational Capability (IOC) or no longer have program managers (PMs) reporting to Component Acquisition Executives (CAE)**

Implementing Policies

- **DoD policies implementing PL 111-84 include:**
  - **Assisting Program Managers (PMs) fulfill life cycle management responsibilities via establishment of mandatory Product Support Manager (PSM) positions for each major weapon system;**
  - **Assigning a properly qualified member of the armed forces or full-time employee of the DoD to PSM positions**
  - **Employing outcome-based (readiness-based) product support strategies delivered at the best value operations and support cost;**
  - **Maximizing competition, or ensure the option of competition, in implementing sustainment strategies for long-term operational effectiveness and making balanced use of DoD and industry resources via stable and robust government-industry partnerships;**
  - **PSM to perform specific duties, including development of a comprehensive product support strategy, conduct of appropriate cost analyses, and establishment and achievement of desired product support outcomes through implementation of appropriate product support arrangements**

DoD Instruction 5000.02 Changes Directed by DTM 10-015

- **PSM. "CAEs shall identify and assign a PSM within every ACAT I and ACAT II program, prior to but no later than program initiation and to former ACAT I/II programs that are post-IOC or no longer have PMs reporting to CAEs"**

- **DUTIES OF THE PSM. The principal duties of the PSM are to:**
  - **Provide weapon systems product support subject matter expertise to the PM for the execution of the PM's duties as the Total Life Cycle Systems Manager, in accordance with DoD Directive 5000.01**
  - **Develop and implement a comprehensive, outcome-based, product support strategy.**
  - **Promote opportunities to maximize competition while meeting the objective of best-value long-term outcomes to the warfighter.**
  - **Seek to leverage enterprise opportunities across programs and DoD Components.**
  - **Use appropriate analytical tools and conduct appropriate cost analyses, including cost-benefit analyses, as specified in Office of Management and Budget Circular A-94 to determine the preferred product support strategy.**
  - **Develop and implement appropriate product support arrangements.**
  - **Assess and adjust resource allocations and performance requirements for product support, not less than annually, to meet warfighter needs and optimize implementation of the product support strategy.**
  - **Document the product support strategy in the Life Cycle Sustainment Plan (LCSP)**
  - **Conduct periodic product support strategy reviews and revalidate the supporting business case analysis prior to each change in the product support strategy or every 5 years, whichever occurs first.**

DoD Instruction 5000.66 Changes Directed by DTM 10-015

- **CAEs shall designate and assign a PSM within every ACAT I and ACAT II program, prior to but no later than program initiation and to former ACAT I/II programs that are post-IOC or no longer have PMs reporting to CAEs**
- **The position of PSM shall be performed by a properly qualified Military Service member or full-time employee of the Department of Defense**
- **PSM will be designated as a key leadership position (KLP) for all Major Defense Acquisition Programs and major weapon systems and designated a critical acquisition position (CAP) for all other major weapon systems**
- **The PSM will be an integral part of the program management team and will report directly to the PM**
- **Incumbents are required to meet the requirements of the position within the prescribed timeframe for CAPs**
- **PSM positions must be filled based on the criteria identified in DoDI 5000.66 and not later than 180 days after DTM issuance**

Defense Acquisition Guidebook (DAG) Changes Directed by DTM 10-015

- **The duties of the PSM include:**
  - **Providing Weapon Systems Product Support Subject Matter Expertise. The PSM shall provide weapon systems product support subject matter expertise to the PM for the execution of his or her duties as the Total Life Cycle System Manager. In support of this PM responsibility, the PSM shall have a direct reporting relationship and be accountable to the PM for product support.**
  - **Developing And Implementing A Comprehensive Product Support Strategy. The product support strategy is designed to assure achievement of warfighter capability-driven life cycle product support outcomes documented in performance-based agreements, generally expressed in preferred terms of weapon system materiel availability, reliability, and operations and support cost affordability. The strategy should identify the execution plan to deliver integrated product support (IPS) elements to the warfighter, producing the best value balance of materiel readiness and total ownership cost.**
  - **Promoting Opportunities To Maximize Competition While Meeting The Objective Of Best-Value Long-Term Outcomes To The Warfighter. Tradeoffs between the benefits of long-term relationships and the opportunity for cost reductions through competitive processes should be considered together with associated risk.**

Defense Acquisition Guidebook (DAG) Changes Directed by DTM 10-015 (Cont'd)

- **The duties of the PSM include:**
  - **Seeking To Leverage Enterprise Opportunities Across Programs And DoD Components. Joint strategies are a top priority where more than one DoD Component is the user of the respective major weapon system or variant of the system. Likewise, product support strategies should address a program's product support interrelationship with other programs in their respective portfolio and joint infrastructure, similar to what is performed for operational interdependencies.**
  - **Using Appropriate Analytical Tools To Determine The Preferred Product Support Strategy. Analytical tools can take many forms (analysis of alternatives, supportability analysis, sustainment business case analysis, life cycle impact analysis), dependent upon the stage of the program's life cycle. These analytical tools shall incorporate the use of cost analyses, such as cost-benefit analyses ,as well as other appropriate DoD and Service guidance These tools are used to help identify the best possible use of available DoD and industry resources at the system, subsystem, and component levels by analyzing all alternatives available to achieve the desired performance outcomes. Additionally, resources required to implement the preferred alternative should be assessed with associated risks. Sensitivity analyses should also be conducted against each of the IPS elements and tracked to determine those IPS elements where marginal changes could alter the preferred strategy.**

Defense Acquisition Guidebook (DAG) Changes Directed by DTM 10-015 (Cont'd)

- **The duties of the PSM include:**
  - **Developing Appropriate Product Support Arrangements For Implementation. Development and implementation of product support arrangements should be a major consideration during strategy development to assure achievement of the desired performance outcomes. These arrangements should take the form of performance-based agreements, memorandums of agreements, memorandums of understanding, and partnering agreements or contractual agreements with product support integrators (PSIs) and product support providers (PSPs), depending on the best-value service integrators or providers.**
  - **Periodically Assessing And Adjusting Resource Allocations And Performance Requirements To Meet Warfighter Needs During Strategy Implementation. Planning, programming, budgeting, and execution of the product support strategy need to be accomplished and aligned to the warfighter's performance-based agreements with the PM and PSM. PSMs, working in concert with the PM, users, resource sponsors, and force providers, should adjust performance levels and resources across PSIs and PSPs as necessary to optimize implementation of the strategy based on current warfighter requirements and resource availability.**

Defense Acquisition Guidebook (DAG) Changes Directed by DTM 10-015 (Cont'd)

- **The duties of the PSM include:**
  - **Documenting The Product Support Strategy In The LCSP. The LCSP describes the plan for the integration of sustainment activities into the acquisition strategy and operational employment of the support system. The PSM prepares the LCSP to document the plan for formulating, integrating, and executing the product support strategy (including any support contracts) to meet the warfighter's mission requirements. The LCSP shall be updated to reflect the evolving maturity of the product support strategy at each milestone, full rate production (FRP), and prior to each change in the product support strategy or every 5 years, whichever occurs first. The LCSP is approved by the milestone decision authority at each milestone and FRP decision. Updates to the LCSP for all major weapons systems after the FRP decision shall be approved by the CAE, in coordination with DASD for Materiel Readiness.**
  - **Conducting Periodic Product Support Strategy Reviews. The product support strategy evolves with the maturation of the weapon system through its various life cycle phases. At FRP, the LCSP should describe how the system is performing relative to the performance metrics and any required corrective actions to ensure the metrics are achieved. Reviews and revalidations of the strategy should be performed at a minimum of every 5 years or prior to each change in the strategy to ensure alignment across system, subsystem, and component levels in support of the defined best-value outcomes. In those situations where a support strategy is at the weapon systems level, the PSM's reassessment should explore potential opportunities for evolving toward a portfolio approach. In those situations where an LCSP is based on a collection of outcome-based product support strategies at the subsystem or component level, the periodic review should explicitly address integrated performance at the weapon systems level. In all situations, the reassessment should consider opportunities to make better use of industry and DoD resources.**

Additional PSM Position Implementation Guidance Contained in DTM 10-015

- **The PSM must be designated in the Life Cycle Logistics position category (see http://www.dau.mil/workforce/pages/pcds.aspx)**
- **In support of the PM's responsibility, the PSM shall have a direct reporting relationship and be accountable to the PM for product support. This does not preclude the PSM from having a dual reporting relationship to a DoD Component logistics or materiel command**
- **For Major Defense Acquisition Programs, major weapon systems, and programs that are post-IOC or no longer have PMs reporting to CAEs, the PSM may have a direct reporting relationship to a DoD Component logistics, sustainment, or materiel command.**
- **In implementation of this DTM, the positions of PSM, Director of Logistics, Assistant Program Manager for Logistics, Deputy Program Manager for Logistics, Program Lead Logistician, and System Support Manager are considered synonymous**
- **PSM positions for Major Defense Acquisition Programs must be designated as KLPs**
- **PSM positions for all major weapon systems must be certified at Defense Acquisition Workforce Improvement Act (DAWIA) Level III in the Life Cycle Logistics career field which includes achievement of general educational, training, and experience requirements**
- **Cross-certification at DAWIA Level II or above in the Program Management, Systems Planning Research Development and Evaluation, or Business-Financial Management career fields should be considered as valued criteria during the selection process**
- **DoD Components are encouraged to establish PSM positions for other acquisition programs not defined as major weapon systems**

Additional Policy Enablers

- **"Life Cycle Management is the implementation, management, and oversight, by the designated Program Manager (PM), of all activities associated with the acquisition, development, production, fielding, sustainment, and disposal of a DOD system across its life cycle." (Manual for the Operation of the Joint Capabilities Integration and Development System (JCIDS))**
- **"The PM shall be the single point of accountability for accomplishment of program objectives for total life cycle systems management, including sustainment" (DoDD 5000.01, Para E1.29.)**
- **March 2007 DUSD L&MR Life Cycle Sustainment Metrics Policy Memo**
  - **Materiel Availability KPP**
  - **Cost & Reliability KSAs**
  - **Mean Down Time Metric**
- **July 2008 USD AT&L "Implementing a Life Cycle Management Framework" Policy Memo**
  - **Implementation of mandatory life cycle sustainment metrics**
  - **Align resources to achieve readiness levels**
  - **Track performance throughout the life cycle; and**
  - **Implement performance-based life cycle product support strategies**

Additional Potential Implementation Enablers (in no Particular Order)

- **Comprehensive vision, strategy, and clear objectives**
- **Courageous Leadership & Champions**
- **Communicate, Communicate, Communicate!**
- **Win-Win-Win-WIN thinking (Warfighter, PM, Industry, Taxpayer)**
- **Shared risk/reward**
- **Early engagement of all key stakeholders in crafting realistic, achievable, cost effective Product Support Strategy and comprehensive Performance Based Agreements (PBA)**
- **Right mix of Metrics that incentive desired behavior**
- **Leverage Core Competencies of public and private sector**
- **Incentives/Disincentives - Driving Behaviors**
- **Structured Government-Industry Partnerships, including & beyond depot maintenance**
- **Agreement of optimized output**
- **Efficient and Effective execution management processes**
- **Virtual/Co-located Program Office Construct**
- **Share lessons Learned**
- **Cohort Teambuilding and Training**

Desired Enterprise Outcomes

- **Readiness, but not at any Cost**
- **Optimizing Life Cycle Costs and Weapon System Availability & Readiness Performance Outcomes**
- **Empowered Government Program Manager & Product Support Manager (PSM) team**
- **Leveraging capabilities and best practices of both public and private sector to deliver best value product support and sustainment outcomes**

DoD Expectations for the PSM

- Communicate, communicate, communicate!
- Broad knowledge of systems engineering process
- Design for Sustainment (Life Cycle Management) Knowledge
- Understanding of acquisition & sustainment
- Focused on delivering performance outcomes to meet warfighter product support requirements
- Optimized readiness within reasonable cost
- Support the PM
- Facilitate LCM
- Focused on long-term, best value product support outcomes
- Integration of acquisition and sustainment planning and execution across the entire life cycle
- Document the product support strategy in the LCSP

Likely Industry Expectations of the PSM

- **Communicate, communicate, communicate!**
- **Broad knowledge of systems engineering process**
- **Design for Sustainment (Life Cycle Management) Knowledge**
- **Understanding of acquisition & sustainment**
- **Understanding of performance based life cycle product support contracting strategies**
- **Open to collaborative, integrated government-industry program support**
- **Leverage best capabilities of both public sector and private industrial base**
- **Understanding of stakeholder perspectives & roles**
- **Financial management & business acumen: Understanding of business management concepts, models, financing, return on investment (ROI)/invested capital, shareholder value**
- **Continuity and stability in the position**
- **Outcome-focused decisions**

A NOTIONAL PSM Professional Development Ladder Construct

POTENTIAL DoD PSM RQMTS

MDAP	104
Pre-MDAP	55
ACAT II	80
Former ACAT I/II in Sustainment	280
Candidate Pool**	~779
Total –	1,298

*(**Assumes 1.5:1 ratio -candidate pool to actual)*

Program Manager (PM), PEO/OSD/HQ Staff

"Graduated" PSMs
- Continued career progression

Product Support Manager (PSM)

Senior Program Logistician
- Designated KLP & CAP Position
- Training: New 400 Level Courses
- Exp: Min 8 yrs (10+ yrs desired)?
- Education: Masters and/or SSS?

Cadre of Future PSMs: Experienced Leaders

Laser-Focus on Grooming Superstars
- Training: PMT 352, ACQ 405
- Experience: Acquisition *and* Sustainment

Life Cycle Logistician: Expert Practitioners

DAWIA Level III Life Cycle Logistician
- Training: LOG 350, 340 (future), 2 CL Modules
- Experience: Minimum 4 years (6 yrs desired)
- Broadening across Acq & Logistics Domains

Journeyman: Gaining Depth and Breadth

DAWIA Level II Life Cycle Logistician
- Training: ACQ 201, LOG 200, 201, 206, 235, 236
- Experience: Minimum 2 years (4 years desired)
- Education: None Required (Bachelors Desired)

New Life Cycle Logistician: Entry Level/Intern

DAWIA Level I Life Cycle Logistician
- Training: ACQ 101, LOG 101, 102, 103, 2 CL Modules
- Experience: Minimum 1 year (2 yrs desired)

References & Resources

- **DoD Directive 5000.01 -** www.dtic.mil/whs/directives/corres/pdf/500001p.pdf
- **DoD Instruction 5000.02 -** www.dtic.mil/whs/directives/corres/pdf/500002p.pdf
- **Defense Acquisition Guidebook (DAG) Chapter 5 -** https://acc.dau.mil/dag_5
- **DAU Logistics Community of Practice (LOG CoP) -** https://acc.dau.mil/log
- **Product Support Manager (PSM) Homepage -** https://acc.dau.mil/psm
- **PSM ACQuipedia Site -** https://acc.dau.mil/CommunityBrowser.aspx?id=375980
- **Performance Based Life Cycle Product Support (PBL) Toolkit -** https://acc.dau.mil/pbl
- **Life Cycle Sustainment Plan (LCSP) -** https://acc.dau.mil/lcsp
- **DoD Logistics Human Capital Strategy (HCS) -** http://www.acq.osd.mil/log/sci/hcs.html
- **Life Cycle Logistics ACQuipedia Repository -** https://acquipedia.dau.mil/log_lcic.aspx
- **Life Cycle Logistics Blog -** https://dap.dau.mil/career/log/blogs/default.aspx
- **Recommended Reading List -** https://acc.dau.mil/CommunityBrowser.aspx?id=383460
- **Logistics Career Field Gateway -** https://dap.dau.mil/career/log
- **DAU Life Cycle Logistics Media Library -** http://www.dau.mil/mpi/default.html
- **Integrated Defense AT&L Life Cycle Framework Chart -** https://ilc.dau.mil/
- **Army Life Cycle Logistics Framework Chart -** https://acc.dau.mil/logsa
- **Joint Life Cycle Logistics Framework Chart –** Will be posted on the LOG CoP
- **Product Support Manager's (PSM) Guidebook -** Will be posted on the LOG CoP
- **Business Case Analysis (BCA) Guidebook -** Will be posted on the LOG CoP
- **Life Cycle Logistics Guidebook -** Will be posted on the LOG CoP

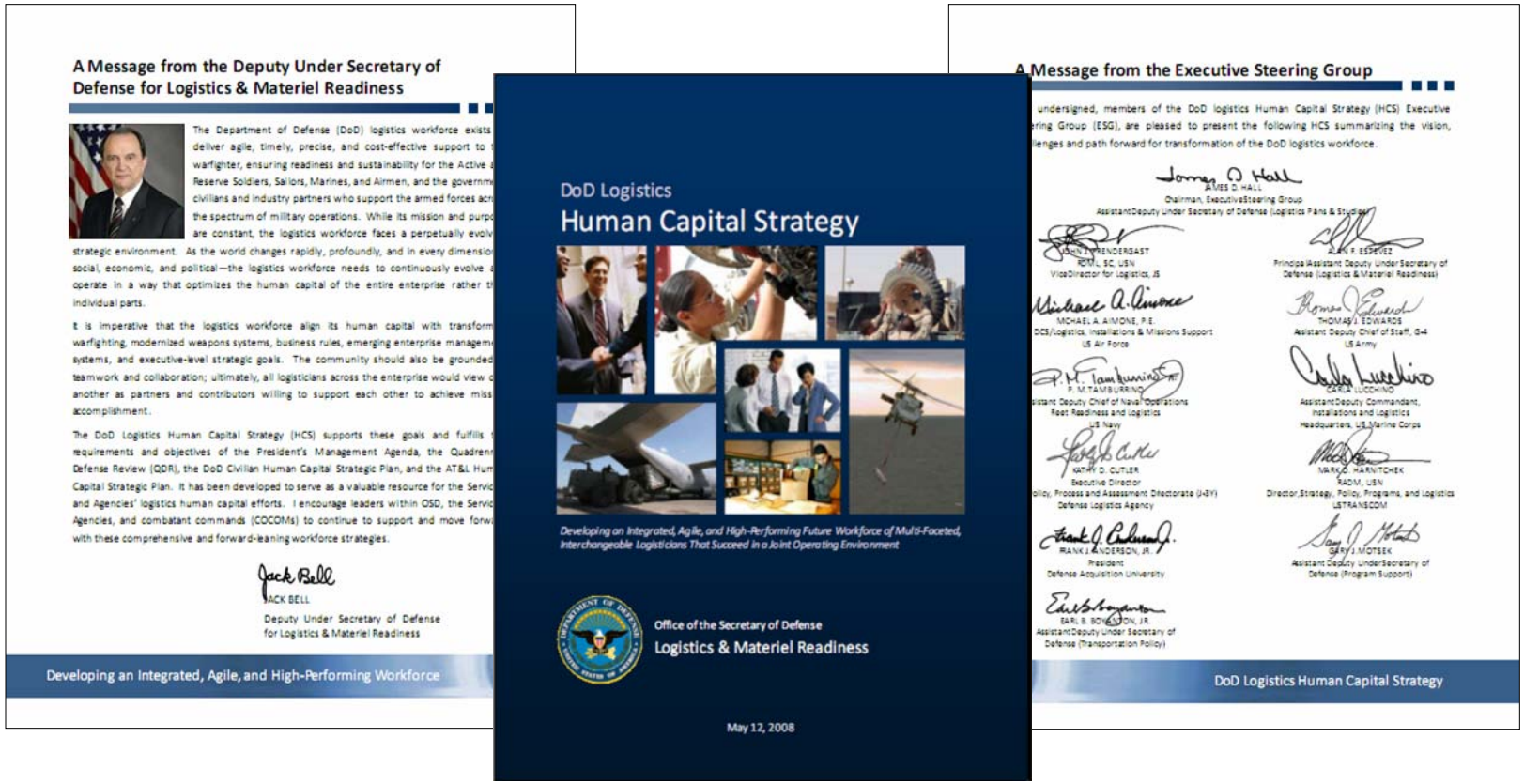
Section IV – Life Cycle Logistics

- DoD Life Cycle Logistics (LCL)
- LCL Workforce
- LCL Professional Development
- LCL Tools, Resources, References

DTM 10-015 Guidance: "The PSM must be designated in the Life Cycle Logistics position category" and " PSM positions for all major weapon systems must be certified at Defense Acquisition Workforce Improvement Act (DAWIA) Level III in the Life Cycle Logistics career field"

DoD Logistics Human Capital Strategy

- **Document signed by DUSD (L&MR) on May 12, 2008**
- **Available at http://www.acq.osd.mil/log/sci/hcs.html**



Key Life Cycle Logistics Objectives

- ***Design for & Develop Support*** **(Acquisition Logistics)**
  - **Influence** product design for reliability, availability, maintainability & supportability
  - Develop & refine Life Cycle Sustainment Plan
  - **Establish** the support system
  - **Identify** the support
  - **Advocate** the best design alternative
  - **Influence** detailed design
  - **Support** Interdisciplinary Integrated Product Teams (IPT)
  - **Foster** Test & Evaluation (T&E) of support system
  - **Minimize** Life Cycle Costs
  - **Acquire** the support

- ***Support the Design*** **(Sustainment)**
  - **Deploy** system (includes support infrastructure)
  - **Implement** & Update Life Cycle Sustainment Plan
  - **Maintain** readiness
  - **Improve** sustainability
  - **Provide** the support to the user
  - **Improve** the system and its support
  - **Modify** and upgrade system capabilities
  - **Minimize** Life Cycle Costs
  - **Proactively mitigate** obsolescence & DMSMS
  - **Plan** for eventual system retirement & disposal

The Life Cycle Logistician translates warfighter performance requirements into tailored product support spanning entire system life cycle

Key Product Support Manager Objectives

- **Life Cycle Logisticians, including Product Support Managers (PSM), must constantly strive to pursue two basic primary objectives:**
  - **First, the weapons system should be designed, maintained, and modified to continuously reduce the demand for logistics**
  - **Second, logistics support must be effective and efficient; the resources required to provide life cycle product support must be minimized while meeting warfighter needs**

Four Logistics Workforce Categories & Fifteen Technical Competencies

SUPPLY MANAGEMENT

Includes procurement to disposal of defense system material, and integration of multiple material sources and processes to meet war fighter requirements.

- Forecasting and Demand Planning
- Supply Planning
- Sourcing
- Inventory Management

MAINTENANCE SUPPORT

Includes planning and executing maintenance, both scheduled and unscheduled, to defense system equipment.

- Maintenance Operations (includes depot maintenance)
- Production & Support

DEPLOYMENT/ DISTRIBUTION/ TRANSPORTATION

Includes transportation, packaging cargo scheduling, and dispatching of materials, support services, and personnel in response to customer requirements to move and sustain the force.

- Physical Distribution/ Transportation Operations
- Deployment Planning

LIFE CYCLE LOGISTICS

Includes planning, development, implementation, and management of a comprehensive, affordable, and effective systems support strategy.

- Logistics Design Influence
- Integrated Logistics Support Planning
- Product Support & Sustainment
- Configuration Management
- Reliability & Maintainability Analysis
- Technical/Product Data Management
- Supportability Analysis

Bottom line: Support the Warfighter!

Life Cycle Logistics: At Nexus of DoD Acquisition & Logistics Communities

DoD Acquisition Community

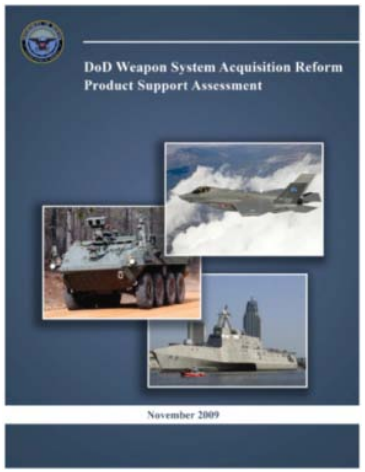
- Property Mgt
- Purchasing
- Contracting
- Program Mgt
- PQM
- BCEFM
- SPRDE – S&T
- SPRDE - SE
- Life Cycle Logistics
- T&E
- IT Mgt
- FE
- Audit

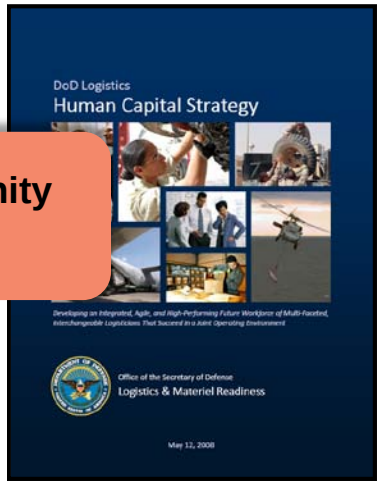
LCL Community ~16K personnel

DoD Logistics Community ~615K+ personnel

Deployment/ Distribution/ Transportation	Supply Management	Maintenance Support

KEY FOCUS: DoD Product Support Assessment & PL 111-84 Sec 805 driving toward greater horizontal & vertical integration





FY 11 Life Cycle Logistics DAWIA Certification Training

Level I Certification

2 CL Modules: PBL & Designing for Supportability
3 hrs ea, on-line

LOG 101 Acquisition Logistics Fundamentals
30 hrs, on-line

ACQ 101 Fundamentals of Systems Acquisition Management
25 hrs, on-line

LOG 102 Systems Sustainment Management
28 hrs, on-line

LOG 103 Reliability, Availability & Maintainability
26 hrs, on-line

P

- *Knowledge based*
- *GS 5-9 & E7-O3*
- *Experience: 1 yr*

Level II Certification

NOTE: There are NO prerequisites for LOG 235

2 CL Modules from Core Plus List
3 hrs ea, on-line

LOG 235 Performance Based Logistics
40 hours, online

ACQ 201 Intermediate Systems Acquisition
35 hours, online
1 week classroom

LOG 200 Intermediate Acquisition Logistics
35 hours on-line

LOG-236 Performance Based Logistics
4.5 days classroom

LOG 201 Intermediate Acquisition Logistics
4.5 days classroom

LOG-206 Intermediate Systems Sustainment
25 hours, on-line

P

- *Application/case based*
- *GS 9-12 & E7-O4*
- *Experience: 2 yrs*

Level III Certification

2 CL Modules from Core Plus List
3 hrs ea, on-line

LOG 350 Enterprise Life Cycle Logistics Management
8.5 days classroom

- *Case/scenario based*
- *GS 13-14 & E7-O5*
- *Experience: 4 yrs*

P = Prerequisite

Level I "Core Plus" Courses & CL Modules
(See DAU catalog for details)

Level II "Core Plus" Courses & CL Modules
(*Includes LOG 204 CM Course*)

Level III "Core Plus" Courses & CL Modules
(See DAU catalog for details)

Shaping the Future Product Support Manager: Life Cycle Logistics Workforce Roadmap (FY12-13)

Level I Certification

- 2 Continuous Learning Modules: PBL & Designing for Supportability — 3 hrs ea, on-line
- ACQ 101 Fundamentals of Systems Acquisition Management — 25 hrs, on-line
- LOG 101 Acquisition Logistics Fundamentals — 30 hrs, on-line
- LOG 102 Systems Sustainment Management — 28 hrs, on-line
- LOG 103 Reliability, Availability & Maintainability — 26 hrs, on-line

P

- *Knowledge based*
- *GS 5-9 & E7-O3*
- *Experience: 1 yr*

Level II Certification

- ACQ 201A Intermediate Systems Acquisition — 35 hours, on-line
- ACQ 201B Intermediate Systems Acquisition — 4.5 days classroom
- LOG 200 Intermediate Acquisition Logistics — 35 hours on-line
- LOG 201 Intermediate Acquisition Logistics — 4.5 days classroom
- LOG-206 Intermediate Systems Sustainment — 25 hours, on-line
- LOG 211 Supportability Analysis — 4.5 days classroom (FY13)
- LOG 235 Performance Based Life Cycle Product Support — 40 hours, online

NOTE: There would still be NO prerequisites for LOG 235

P

- *Application/case based*
- *GS 9-12 & E7-O4*
- *Experience: 2 yrs*

Level III Certification

FY12

- LOG 340 Performance Based Life Cycle Sustainment — 4.5 days classroom
- LOG 350 Enterprise Life Cycle Logistics Management — 9.5 days classroom

P

- *Case/scenario based*
- *GS 13-14 & E7-O5*
- *Experience: 4 yrs*

Level I "Core Plus" Courses & CL Modules
(See DAU catalog for details)

New Cert Courses

P = Prerequisite

Level II "Core Plus" Courses & CL Modules
(Includes LOG 204 CM Course)
(Plus future LOG 215 Tech Data Mgt Course)

Level III "Core Plus" Courses & CL Modules
(See DAU catalog for details)
(Plus future 400 Level PSM Training)

35 Life Cycle Logistics Continuous Learning Modules (FY10)
Currently Available or in Development

Module	Title
CLL002	DLA Support To The PM
CLL004	Life Cycle Logistics for the Rest of Us
CLL006	Depot Maintenance Partnering
CLL008	Designing for Supportability in DoD Systems
CLL011	Performance Based Logistics (PBL)
CLL013	Defense Packaging
CLL014	Single Integrated Support Strategy for Joint Systems
CLL015	Business Case Analysis (BCA)
CLL 016	Joint Logistics
CLL017	Defense Distribution & Transportation
CLL019	Technology Refreshment Planning
CLL020	Independent Logistics Assessments (ILA)
CLL022	Title 10 Depot Maintenance Statute Overview
CLL023	10 USC 2464 Core Statute Implementation
CLL024	10 USC 2466 “50-50” Statute Implementation
CLL025	Depot Maintenance Interservice Support Agreements (DMISA)
CLL026	Depot Maintenance Capacity
CLL029	Condition Based Maintenance (CBM+)

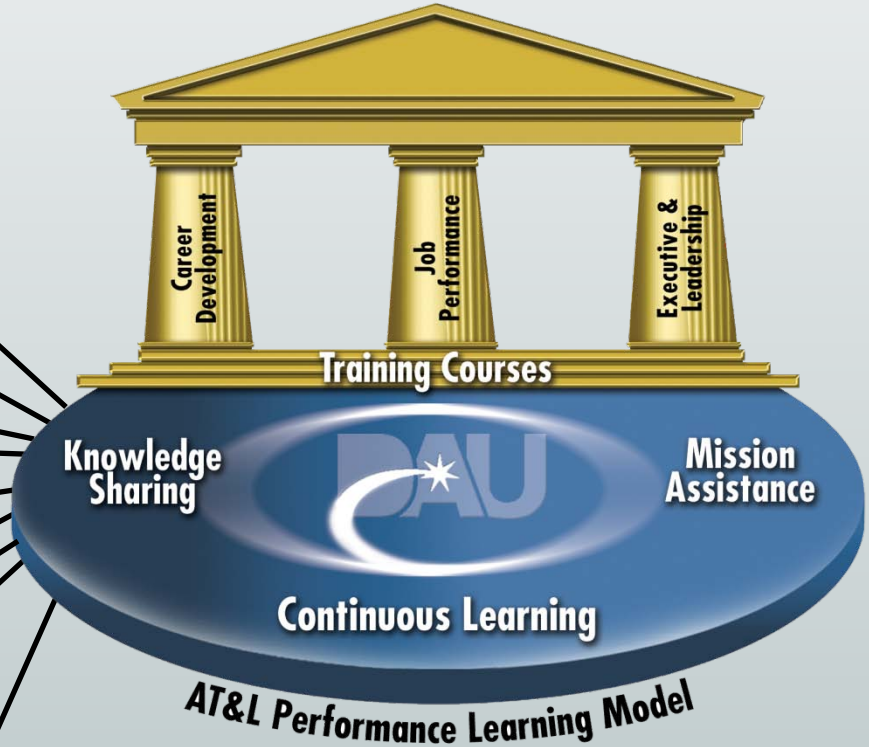
Module	Title
CLL030	Reliability Centered Maintenance (RCM)
CLL032	Preventing Counterfeit Parts from Entering the DoD Supply System
CLL034	US Army SSN-LIN Automated Management & Integrating System (SLAMIS)
CLL119	Technology Refreshment Implementation
CLL201	DMSMS Fundamentals
CLL202	DMSMS Executive Course
CLL203	DMSMS Essentials for DLA
CLL204	DMSMS Case Studies
CLL 205	DMSMS for the Technical Professional
CLL206	Parts Management Executive Overview
CLL001	Life Cycle Management & Sustainment Metrics
CLL003	Logistics Test & Evaluation (T&E)
CLL005	Developing a Life Cycle Sustainment Plan (LCSP)
CLL012	Supportability Analysis
CLL018	Joint Deployment Distribution Operations Center (JDDOC)
CLL035	Level of Repair Analysis (LORA)
CLL120	Shelf Life

Life Cycle Logistics Future Continuous Learning Module Development (FY11-14)

Title
• Product Support Manager (PSM) Roles & Responsibilities
• O&S Cost Estimating, Budgeting, Funding and Execution
• Product Support for the Acquisition Community
• Product Support and Sustainment Requirements Identification
• Business Case Analysis (BCA) Tools
• Life Cycle Cost Analysis Tools
• Software & IT Sustainment/ Logistics
• Logistician's Responsibilities during Major Technical Reviews
• Supportability Analysis Tools
• Environmental and Energy Considerations (Green Logistics)
• Retrograde, Reset, Recapitalization, & Materiel Disposition
• Performance Based Agreement (PBA) Development
• Earned Value Management (EVM) for the Logistician
• Government Product Support Integrators (PSI)
• Writing and Evaluating Contract Solicitation Documents Establishing Logistics Requirements for PSI
• Product Support for Systems Acquired through Rapid Acquisition
• Logistics and Sustainment Modeling and Simulation (M&S) Tools
• Management of COTS Tech Refresh and Insertion
• System Retirement, Demilitarization and Disposal Overview
• Product & Technical Data Rights
• Sustainment Readiness Levels (SRLs)
• Space Systems Support and Sustainment
• Joint Task Force Port Opening
• Joint Deployment and Distribution Performance Metrics Framework for Sustainment Distribution

DAU Supporting the Defense Acquisition Workforce…

- Logistics Communities
- LOG Career Gateway
- LOG Blog
- PBL Toolkit
- PM eToolkit
- LOG ACQuipedia Topics
- Media Library
- LOG Best Practices
- Defense Acquisition Guidebook
- Integrated Framework Chart (IFC)

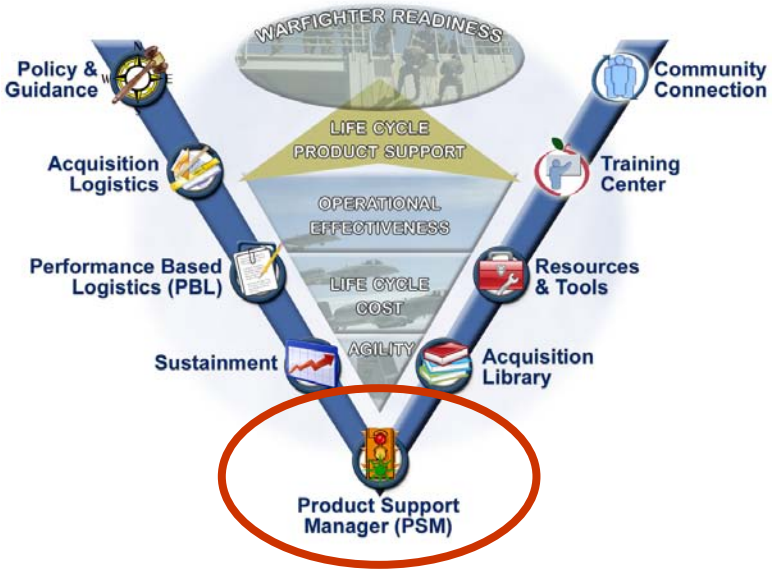


Providing a Constant Support Presence in DoD Acquisition Careers

Logistics Management Community of Practice (Log CoP)

AT&L Performance Learning Model enables better workforce performance

- **Award-winning Knowledge Mgt capability**
- **LOG CoP is most robust, most visited site**
- **Largest of 17 acquisition communities, with extensive sustainment resources**
- ***New Product Support Manager (PSM) Site (https://acc.dau.mil/psm)***



Tools & Templates

- **Access Latest LCL Resources**
- **Supportability Best Practices**
- **Logistics Lessons Learned**
- **Sustainment Issues and Initiatives**

Life Cycle Logistics Resource Center

- **Logistics Training & Education**
- **Latest OSD Policy and Direction**
- **Logistics Conferences/Events**
- **Link to Top DoD Web sites**

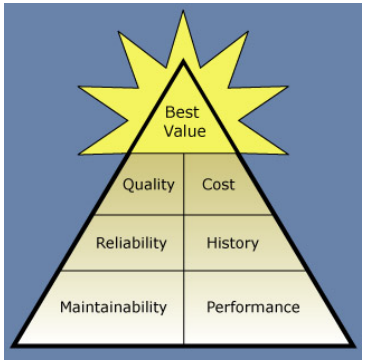
Accessible online at https://acc.dau.mil/log

Other Sources for Most Current, Up-to-Date Information

- **Defense Acquisition Portal (DAP)**
  https://dap.dau.mil

- **Logistics Career Field Gateway**
  https://dap.dau.mil/career/log

- **DAU Logistics & Sustainment Center Director's Blog**
  https://dap.dau.mil/career/log/blogs

Summary

- **Goal: Genuine Life Cycle Management Delivering Sustained Long-Term Weapon System Readiness/Availability to the Warfighter While Optimizing Life Cycle Costs**
- **While PM is Ultimately Responsible for LCM, PSM will be Key to Sustainment Planning and Execution**
- **Think (Very) Long Term, Best Value, "Life of Program" Product Support Perspective**
- **Performance Based Life Cycle Product Support (PBL) is a Powerful Enabler**
- **Operational Perspectives, Early Sustainment Planning, Investment in Reliability, Availability & Maintainability (RAM) and a Life Cycle Focus are Paramount**
- **Congressional Mandate for Product Support Manager (PSM) is a Game Changer**
- **Policy Evolving Rapidly; PL 111-84, Sec 805 Implementation & DoD Product Support Assessment will drive next round**
- **By including Section 805 in FY 2010 NDAA, Congress made it clear where it stands on these issues -- and who is responsible for addressing them**