Panel Moderator - Colonel Jordan Chroman - DASD Material Readiness

Panel Members:
Mr. John Boyce - Consultant, DASD Material Readiness
Mr. Bill Kobren - Director, Logistics & Sustainment Center, Defense Acquisition University
Mr. Joseph "Colt" Murphy, Senior Financial Analysts, DASD Material Readiness
Mr. Shaugnessy Reynolds, Director Life Cycle Logistics & Support, Northrop Grumman Aerospace Systems
Capt Fred Melnick, Commanding Officer, Fleet Readiness Center Southwest

2010 DoD Maintenance Symposium
Tampa Florida   November 15, 2010
DoD Product Support Assessment

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

- Senior Steering Group strongly endorsed report and way ahead
- Final report signed by USD(AT&L) on November 12, 2009
- Implementation planning and actions underway
FY 10 NDAA Sec 805, establishes the PSM position for major weapon systems who shall accomplish six major tasks:

- Develop and implement a comprehensive product support strategy
- Conduct appropriate cost analyses to validate the product support strategy (BCA)
- Assure achievement of desired product support outcomes through product support arrangements (PBL)
- Optimize implementation of the product support strategy (i.e. balance warfighter effectiveness and affordability - PBL)
- Periodically review product support arrangements between PSIs and PSPs for consistency with the overall product support strategy
- Prior to changing the product support strategy or every five years, revalidate the BCA / product support strategy
Today’s Environment For The PSM

• **Quadrennial Defense Review 2010**
  - Achieve effective LCC management by employing readiness-based sustainment strategies, facilitated by stable and robust government-industry partnerships

• **Dr. Carter (USD AT&L) September 14th, 2010 Memo for Greater Productivity & Efficiency in Defense Spending:**
  - “…ADM) will contain an affordability target to be treated by the program manager (PM) like a Key Performance Parameter (KPP)…”
  - “I will require… a competitive strategy for each program at each milestone…”

“In Simple Terms, Do More Without More”
Product Support Business Model

Inherently Governmental

Performance Based Agreement

Program Manager (PM)
Responsibility/Authority

Product Support Manager (PSM)
Accountability

Integrated Industrial Base: Commercial and Government

Product Support Integrators

Bound Agents
"Achieve documented outcomes within terms of agreements"

Defined Performance Outcomes

Product Support Providers

Depots
DLA
ICPs
OEMs
Tier 3
Tier X

KPP/KSA
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

Relationships, requirements, and management tools are combined to integrate product support stakeholders and activities
Changes Directed by DTM 10-015 to DoD Instruction 5000.66 “Defense Acquisition Workforce Education, Training, & Career Development Program”

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 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
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)

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

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

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

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

Journeyman: Gaining Depth and Breadth
- Training: ACQ 201, LOG 200, 201, 206, 235, 236
- Experience: Minimum 2 years (4 years desired)
- Education: None Required (Bachelors Desired)

Life Cycle Logistcian: Expert Practitioners
- Training: LOG 350, 340 (future), 2 CL Modules
- Experience: Minimum 4 years (6 yrs desired)

Cadre of Future PSMs: Experienced Leaders
- "Graduated" PSMs
  - Continued career progression

Product Support Manager (PSM)
- Laser Focus on Grooming Superstars
  - Training: PMT 352, ACQ 405
  - Experience: Acquisition and Sustainment
Comprehensive Life Cycle Logistics Training: Empowering Future Product Support Managers

Level I Certification

- **LOG 101** Acquisition Logistics Fundamentals
- **LOG 102** Systems Sustainment Management
- **LOG 103** Reliability, Availability & Maintainability

FY10

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

New Courses

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

FY10

P = Prerequisite

Level II Certification

- **ACQ 202** Intermediate Systems Acquisition
- **ACQ 203** Intermediate Systems Acquisition
- **LOG 200** Intermediate Acquisition Logistics
- **LOG 201** Intermediate Acquisition Logistics
- **LOG 206** Intermediate Systems Sustainment

FY10

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

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

FY13

P = Prerequisite

Level III Certification

- **LOG 340** Performance Based Life Cycle Sustainment
- **LOG 350** Enterprise Life Cycle Logistics Management

FY12

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

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

FY12

NOTE: There would still be NO prerequisites for LOG235

Level II Certification

- **LOG 211** Supportability Analysis

25 hours, on-line

P

Level III Certification

- **LOG 340** Performance Based Life Cycle Sustainment

Xx days classroom

P

Level III Certification

- **LOG 350** Enterprise Life Cycle Logistics Management

8.5 days classroom

P
## 35 Life Cycle Logistics Continuous Learning Modules Currently Available or in Development

<table>
<thead>
<tr>
<th>Module</th>
<th>Title</th>
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<tbody>
<tr>
<td>CLL002</td>
<td>DLA Support To The PM</td>
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<td>CLL004</td>
<td>Life Cycle Logistics for the Rest of Us</td>
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<tr>
<td>CLL006</td>
<td>Depot Maintenance Partnering</td>
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<td>CLL008</td>
<td>Designing for Supportability in DoD Systems</td>
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<td>CLL011</td>
<td>Performance Based Logistics (PBL)</td>
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<td>CLL013</td>
<td>Defense Packaging</td>
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<td>CLL014</td>
<td>Single Integrated Support Strategy for Joint Systems</td>
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<td>CLL015</td>
<td>Business Case Analysis (BCA)</td>
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<td>CLL016</td>
<td>Joint Logistics</td>
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<td>CLL017</td>
<td>Defense Distribution &amp; Transportation</td>
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<td>CLL019</td>
<td>Technology Refreshment Planning</td>
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<tr>
<td>CLL020</td>
<td>Independent Logistics Assessments (ILA)</td>
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<td>CLL022</td>
<td>Title 10 Depot Maintenance Statute Overview</td>
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<td>CLL023</td>
<td>10 USC 2464 Core Statute Implementation</td>
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<tr>
<td>CLL024</td>
<td>10 USC 2466 “50-50” Statute Implementation</td>
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<td>CLL025</td>
<td>Depot Maintenance Interservice Support Agreements (DMISA)</td>
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<td>CLL026</td>
<td>Depot Maintenance Capacity</td>
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<td>CLL029</td>
<td>Condition Based Maintenance (CBM+)</td>
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<td>CLL030</td>
<td>Reliability Centered Maintenance (RCM)</td>
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<tr>
<td>CLL032</td>
<td>Preventing Counterfeit Parts from Entering the DoD Supply System</td>
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<tr>
<td>CLL034</td>
<td>US Army SSN-LIN Automated Management &amp; Integrating System (SLAMIS)</td>
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<tr>
<td>CLL119</td>
<td>Technology Refreshment Implementation</td>
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<tr>
<td>CLL201</td>
<td>DMSMS Fundamentals</td>
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<td>CLL202</td>
<td>DMSMS Executive Course</td>
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<td>CLL203</td>
<td>DMSMS Essentials for DLA</td>
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<td>CLL204</td>
<td>DMSMS Case Studies</td>
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<td>CLL205</td>
<td>DMSMS for the Technical Professional</td>
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<td>CLL206</td>
<td>Parts Management Executive Overview</td>
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<td>CLL001</td>
<td>Life Cycle Management &amp; Sustainment Metrics</td>
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<td>CLL003</td>
<td>Logistics Test &amp; Evaluation (T&amp;E)</td>
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<td>CLL005</td>
<td>Developing a Life Cycle Sustainment Plan (LCSP)</td>
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<td>CLL012</td>
<td>Supportability Analysis</td>
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<td>CLL018</td>
<td>Joint Deployment Distribution Operations Center (JDDOC)</td>
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<td>CLL035</td>
<td>Level of Repair Analysis (LORA)</td>
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<tr>
<td>CLL120</td>
<td>Shelf Life</td>
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</tbody>
</table>
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
Targeted PSM Resources

Available Now
- Existing DAU Life Cycle Logistics Training and Knowledge Sharing
- Enhanced LOG 350 “Enterprise Life Cycle Logistics Management” Course
- PSM Rapid Deployment Training (RDT)
- PSM Reference Repository on DAU Logistics Community of Practice

Available Soon (FY11)
- Defense Acquisition Guidebook (DAG) Update
- Product Support Manager’s (PSM) Guide
- Business Case Analysis (BCA) Guide
- Independent Logistics Assessment (ILA) Guide
- Sustainment Review (Post-IOC) Guide
- Life Cycle Logistics Guide
- CLL 036 “PSM Roles and Responsibilities” Continuous Learning Module

Available in the Future/Proposed (FY12-13)
- Joint Service Life Cycle Logistics Wall Chart
- LOG 340 “Performance Based Life Cycle Product Support”
- Interdisciplinary ACQ 465 Key Leader Course
- Post-Level III LOG 4xx PSM Course
O&S Cost Affordability

Financial Impact

• Important!!! For most programs O&S = 60-85% of Life Cycle Costs
• Labor and POL are key O&S cost drivers

Decision Making

• O&S cost drivers are influenced early and throughout the Life Cycle
  • Warfighter requirements and early development decisions are vital
  • Sustainment strategies must be planned for up front to include updating
• O&S cost decision making processes and tools are found to be lacking (GAO)
O&S Cost Affordability

Operational Fallout

- Reduced procurement numbers, F-22 buy reduced ~200
- Reduced operational hours and manning levels
- Trending DOD top line is unsustainable

O&S Cost Management Initiatives

- Affordability Task Force – strategic level
- PSAT O&S Cost IPT - operational level
- Balance of multiple stakeholder requirements

Long Term Goals

- Comprehensive cost cycle map of process and documentation
- Coordinated set of decision making tools and processes
  - Timely, validated and consistent use of cost information
O&S Cost Short Term Goals

Standardize cost terminology

• DoD cost communities need standard terminology for effective communication across Services

Source useful for all organizations

• Is it centralized or decentralized?
• Is it a dictionary of cost terms or some other type of document?

Sound records retention

• Retained records allows decision makers access to information vital to making informed, value based decisions

Decision making support documentation

• Follow on decisions across a program’s life cycle
• Decisions regarding analogous follow-on programs
Product Support Integrator Environment

Achieving the Right Industrial Base Balance is the Challenge

Customer – Visionary
- Innovation (MS A)

Customer – Change Agents
- Leading Adaptors (SDD)
- People/Software/Product Alignment

Customer – Traditional
- Executing Infrastructure (Post Prod)

Customer – Skeptic
- Infrastructure Capability
- Adopters (Prod)

Change in Roles And Responsibilities

Logistics
Business Change

High
Low

Stratification
Service Integration
## Sustainment Trade Space
### Integrating Innovative Approaches

### Support Element

<table>
<thead>
<tr>
<th>Support Element</th>
<th>Fleet / Platform</th>
<th>Airframe</th>
<th>Propulsion</th>
<th>Payload / Sensors</th>
<th>Subsystem or component</th>
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</thead>
<tbody>
<tr>
<td>1. Product Support Management</td>
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<td>2. Design Interface</td>
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<td>3. Sustaining Engineering</td>
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<td>4. Supply Support</td>
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<td>5. Maintenance Planning and Management</td>
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<td>6. PHS&amp;T</td>
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<td>7. Technical Data</td>
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<td>8. Support Equipment</td>
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<td>9. Training &amp; Training Support</td>
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<td>10. Manpower and Personnel</td>
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<td>11. Facilities &amp; Infrastructure</td>
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<td>12. Computer Resources</td>
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### Program Delivery is defined by:
- Baseline sustainment posture
- Industrial Base Capabilities
- Business model and value proposition

### Business Integration Approach
(3 Potential Dimensions)
- Transactional
- Partnership
- Outcome Based
**AFFORDABILITY TRADE SPACE**

- **SENSITIVITY TO FORCE MIX**
  - Increasing Number Of Unmanned Nodes
  - Increasing Number Of Manned Nodes

- **COST TRADE SPACE - By Key Parameter**
  - RDT&E ($B)
  - Procurement ($B)
  - TOC ($B)
  - CPFH ($K)
  - Yearly Cost Per TAI ($M)

- **LCC/TOC SENSITIVITY**
  - FORCE MIX TO DELIVER SAME PERFORMANCE
    - MANNED & UNMANNED
    - MANNED NODE TYPE
    - UNMANNED NODE TYPE

- **COST TRADE SPACE BOUNDED BY**:
  - TOTAL OWNERSHIP COST GOALS
  - LCC COMPONENT COST TARGETS
    - RDT&E
    - PROCUREMENT
    - O&S

- **COST PER OPERATING HOUR**
- **YEARLY COST PER TOTAL INVENTORY ACFT**

PUBLIC RELEASABLE
FRCSW Competencies

**Engineering**
- Forge & Drop Hammer Manufacturing
- Composite Repair & Manufacturing
- Calibration & Materials Analysis Labs
- Stress Analysis & Repair Component Design

**Industrial**
- Multi-axis & Chemical Machining
- Clean Room Component Repair
- Laser & Water Jet Cutting
- Shipping, Receiving & Tracking Components

**Logistics**
- Stress Analysis & Repair Component Design
- Forge & Drop Hammer Manufacturing
- Calibration & Materials Analysis Labs
- Multi-axis & Chemical Machining
SH-60 Seahawks

Engineering & Logistics Support

E-2C Hawkeyes & C-2A Greyhounds

Ground Support Equipment (GSE)

F/A-18 Hornets / Super Hornets

Aircraft Catapults & Arresting Gear

Components & Manufacturing

Intermediate Maintenance (AIMD)

Training & Field Service Teams

Intermediate Maintenance (AIMD)
PSM's Role – Maintainer’s view

Meet the Department's Goals

• Achieve "Long term best value"
  • Enhance sustainment ability
  • Reduce support costs

• Broader role than just a logistician
  • ...an "APML on Steroids"

• Provide a window into planned weapon system changes
  • Coordinate with maintainer in planning repair technology for the future
Maintenance Role

- Partner with PSM...We are his enabler
- Leverage our partnerships - Public and Private
- Engaging our Mfg-Eng-Log
- Open access to our facilities and challenges
- Continuous collaboration will ensure success
BACKUP SLIDES
What Does This Mean in Practical Terms?

CAP Requirements

- Level II DAWIA Certification (Experience, Training, Education); *(Note: DTM 10-015 requires Level III Life Cycle Logistics Certification for all PSMs)*
- Baccalaureate degree from an accredited educational institution.
- Significant potential for advancement to greater responsibility & authority
  AND ONE of the following:
  - 24 semester credit hours from among: accounting, business, finance, law, contracts, purchasing, economics, industrial management, marketing, quantitative methods, organization and management.
  - 24 semester credit hours in the person’s career field and 12 semester credit hours in the disciplines listed above.
  - 24 semester credit hours in the person’s career field and training equivalent to 12 semester credit hours in the disciplines listed above.

KLP Requirements

- CAP Requirements Plus:
- Significant level of responsibility and authority key to success of a program
- Level III DAWIA Certification (Experience, Training, Education)
- Three Year Tenure Requirement
Key Leadership Positions (KLPs)

- **Defense Acquisition Workforce (DAW)**
- **Acquisition Corps**
- **Critical Acquisition Positions (CAP)**
- **Key Leadership Positions (KLP)**

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.
Two Key PSM Objectives

At the End of the Day, Life Cycle Logisticians, including Product Support Managers, must constantly strive to pursue two fundamental objectives:

1. The weapons system should be designed, maintained, and modified to continuously reduce the demand for logistics

2. Logistics support must be effective and efficient; the resources required to provide life cycle product support must be minimized while meeting warfighter needs

Bottom Line: Achieving Optimized Affordable Readiness
References & Resources

DAU Logistics Community of Practice (LOG CoP) - https://acc.dau.mil/log
Product Support Manager (PSM) Homepage - https://acc.dau.mil/psm
Life Cycle Sustainment Plan (LCSP) - https://acc.dau.mil/lcsp
PSM Rapid Deployment Training - http://www.dau.mil/images/Pages/RDT.aspx
Logistics Career Field Gateway - https://dap.dau.mil/career/log
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