Weapon System Life Cycle Support

NDIA Logistics Conference
Miami, Fl
April 14, 2010
Panel Line-Up

- Mr. Randy Fowler – Assistant Deputy Under Secretary of Defense (Materiel Readiness) – Moderator
- RDML Vince Griffith – Commander, Defense Supply Center Richmond
- RDML Dave Baucom – Deputy Asst. Secretary of the Navy (Acquisition & Logistics Management)
- BrigGen James Kessler – Commander, Marine Corps Logistics Command
- Mr. Lou Kratz – Vice President, Logistics and Sustainment, Lockheed Martin Corporation
DoD Product Support Assessment

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 Teams Underway
✓ Thanks to NDIA for participation along the journey!
DoD Weapon System Acquisition Reform

Product Support Assessment

**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 produce 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.

**O&S Costs:**
Improve O&S cost visibility and influence.

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

**Weapons System Data:**
Define, collect, report, and manage the data we need to drive effective Life Cycle Product Support.
Product Support Business Model

Inherently Governmental

Responsible
“Oversight & Management”

Accountable
“Establish Product Support Strategy”

Performance Based Agreement

Program Manager (PM)

Responsibility/Authority

Product Support Manager (PSM)

Accountability

Integrated Industrial Base:
Commercial and Government

Product Support Integrators

Defined Performance Outcomes

Product Support Providers

Depots

DLA

ICPs

OEMs

DPO

Tier X
FY 2010 NDAA Sec. 805, Life Cycle Management and Product Support

- 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 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

Attachment 1 - Guidance on LCM and Product Support Strategies
Attachment 2 – Definitions

On track for April 30 guidance issuance
Sec 805 – What’s Different?

• Explicitly establishes a PM help-mate
• Strengthens PM authority (funding)
• Builds a better Life Cycle Logistics human capital asset
• More respect for an integral program management position (front-line)
• Potential for many key roles and responsibilities to be performed better
Reforming How We Buy:
Improving program execution

- Employ fixed-price development contracts more frequently
- Constrain added requirements by employing Configuration Steering Boards
- Demonstrate critical technologies and prove concepts prior to initiating engineering and manufacturing development
- Certify technology maturity through independent reviews and technology readiness assessments
- Develop more accurate technical baselines
- Conduct realistic integrated testing as early as possible
- Better align profitability with performance
- “Achieve effective life cycle cost management by employing readiness-based sustainment strategies, facilitated by stable and robust government-industry partnerships.”

Strengthening the Industrial Base

- “…create and/or sustain competition, innovation, and essential industrial capabilities.”
Life Cycle Management: 
*Influencing Weapon System Logistics*

**Assessment – Nov 2009**

- Enterprise versus Platform perspective
- No single end-to-end supply chain owner
- Lack of visibility of total costs

**DLA Contributions**

- Balance Platform support with Enterprise efficiency
- Collaborate with military and commercial partners
- Capture and share total cost
Product Support Provider (PSP): Joint Collaboration with Industry

MRAP Example
- Partnerships with OEMs and services
- Rapid evolutionary development and deployment (ACAT ID)
- Approaching PSI engagement

MRAP Family
- 6 OEMs
- 100+ variants
- Engines, transmissions...

SECDEF armor memo

Joint MRAP program est.

Initial fielding

Forward repair
Upgrades
Depot support
Theater support
Cataloging

Operation Iraqi Freedom

Operation Enduring Freedom

Dec 04
Nov 06
Jan 07
Apr 07
Sep 08
Today

17K Items
$465M FY09

35K Items
12K+ Vehicles

12K+ Vehicles
Product Support Integrator (PSI): Partnering with all Sources of Support

DLA Industrial Support

- Exploit wholesale supply
- Optimize retail supply
- Utilize organic capability
- Integrate DLA and non-DLA material
- Perfect Order Fulfillment (POF) driven execution

KC-135 Flight Controls
- 22 End items
- 8,000+ Items
- $36M per year (Parts)

Tech Data
- Forecasting
- Strategic Contracting
- Aging Aircraft Issues
- Organic Manufacturing

Parts
- Retail Supply
- Local Procurement Planning
- DLA OK City

Retail Inventory
- Parts

Depot Maintenance

Outboard Aileron
Inboard Aileron
Inboard Spoiler
Fillet Flap
Outboard Flap
Elevator
Product Support Decisions: Optimizing Total Logistics System Value

**Considerations**
- Balance cost/risk/capabilities
- Focus on performance and manage by facts & outcomes
- Decision drivers:
  - Availability
  - Reliability
  - Affordability

**DLA Contribution**
- National (global) supply system
- Sustainment commitment through disposal
- Global/theater deployable

**Choices made here...**

**...are paid for HERE.**

**Operations & Support**
60-75% of Life Cycle Cost!

<table>
<thead>
<tr>
<th>OSD</th>
<th>JCS</th>
<th>COCOM</th>
<th>ECB</th>
<th>Pre-Systems Acquisition</th>
<th>Systems Acquisition</th>
<th>Sustainment</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>(Program Initiation)</td>
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**Assess**
- Materiel Solution Analysis
- Materiel Develop. Decision
- Technology Develop.
- Engineering and Manufacturing Development
- Production & Deployment
- LRIP/OT&E
- FRP Decision Review

**Materiel Develop. Decision**
- Post-PDR Assess
- Post-CDR Assess
Product Support Manager and DLA: Partnering to Sustain the Warfighter

Product Support Manager
- Weapon system view
- Enabling metric POF

Takeaways
- Understand support contribution of enterprise
- Understand support strategy impact enterprise
- Collaborate w/DLA

DLA
- Supply chain view
- Objective metric POF

Takeaways
- Understand support contribution to weapon system
- Understand weapon system support costs
- Collaborate w/PSM

Shared Vision...Optimum Warfighter Support
Naval Weapons Systems
Life Cycle Support

RDML Dave Baucom
Deputy Assistant Secretary of the Navy
(Acquisition and Logistics Management)
April 14, 2010
2 Pass / 6 Gate Process

Program Initiation at Milestone B

**Legend:**
- **Gate Chair:** ASN(RDA)
- **Gate Chair:** CNO/CMC

**Technical Reviews**
- Initial Capability Document
- Analysis of Alternatives
- Materiel Development Decision
- Technology Demonstration Program Decision Meeting
- Post Integrated Baseline Review
- Post Critical Design Review
- Post Critical Design Review Assessment
- Post Preliminary Design Review Assessment
- Request For Proposal

**Independent Logistics Assessments**
- DON Requirements
- Acquisition
- Operations & Support
- Full Rate Production
- Disposal

**Legend:**
- New Gate
- DON Requirements
- Acquisition
- Operations & Support
- Full Rate Production
- Disposal

**Milestone B**
1. Initial Capability Document
2. Analysis of Alternatives
3. Materiel Development Decision
4. Technology Demonstration Program Decision Meeting
5. Post Preliminary Design Review Assessment
6. Post Critical Design Review Assessment
7. Request For Proposal
8. DON Requirements
9. Acquisition
10. Operations & Support
11. Full Rate Production
12. Disposal
## Gate Review Core and Program Health

### “Core” = Detailed information germane to the Gate Decision

11. ILA Results and Life Cycle Sustainment Plan

### “PoPS” = Holistic view of overall program health and readiness to proceed

- Used during Gate Reviews and anytime Program Health is discussed
Probability of Program Success

Naval PoPS 2.0

Program Health

4 Factors

- Program Requirements
  - Parameter Status
  - Scope Evolution
  - CONOPS

- Program Resources
  - Manning
  - Budget and Planning

- Program Planning/Execution
  - Technical Maturity
  - Government Program Office Performance
  - Test and Evaluation
  - Sustainment
  - Acquisition Management
  - Software
  - Industry/Company Assessment
  - Contract Planning and Execution
  - Total Ownership Cost Estimating
  - Technology Protection

18 Metrics

- Fit in Vision
- Program Advocacy
- Interdependencies
PoPS Program Health Scoring – Gate 6 (Sustainment)

Program Name
68.02/100

Program Requirements 6.50/12
- Parameter Status 6.50/12
- CONOPS
- Scope Evolution

Program Resources 6.50/12
- Budget and Planning 4.50/9
- Manning 5.00/5

Program Planning/Execution 46.79/68
- Technical Maturity 4.50/9
- Test & Evaluation 4.50/9
- Acquisition Mgmt 4.50/9
- Industry/Company Assessment 4.50/9
- Total Ownership Cost Estimating 4.50/9

Gov’t Program Office Performance 4.50/9
- Sustainment 4.50/9
- Software 4.50/9
- Contract Planning and Execution 4.50/9
- Technology Protection 4.50/9

External Influencers 46.79/68
- Fit and Vision
- Program Advocacy
- Interdependencies 4.50/9

Gray: Not Applicable to Gate “6” Sustainment
## PoPS Scoring: Gate 6 – Sustainment (Draft) Criteria

<table>
<thead>
<tr>
<th>Total Ownership Cost Estimating</th>
<th>Gate 6 Sustainment</th>
<th>6.sust.8.1</th>
<th>Post-Initial Operational Capability (IOC) cost estimates and the projection of the Total Ownership Cost (TOC) Objective versus Service Cost Position (SCP) baseline are substantiated by assessed fielded systems performance, operations, and sustainment related expenditure to date.</th>
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</thead>
<tbody>
<tr>
<td>Sustainment</td>
<td>Gate 6 Sustainment</td>
<td>6.sust.11.1 (critical criteria)</td>
<td>Sustainment program logistically supports all system performance capabilities introduced to date, such that Key Performance Parameter/Key System Attribute (KPP/KSA) capability parameters are assessed to meet threshold levels.</td>
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</tbody>
</table>
USMC Life Cycle Product Support: The “Single Battle Concept”

Brigadier General Jim Kessler
Commanding General
Marine Corps Logistics Command

Logistics Solutions for the Warfighter
Marine Corps Life Cycle Product Support: More Than a Procurement Decision

- Recognizing it’s more than a “PM-centric” view of Life Cycle Management
- Integrating USMC strategic imperatives into the process
  - Future warfighting concepts and requirements
  - Current acquisition and sustainment procedures
  - Early sustainment planning and development
  - Advocacy for combat readiness of the MAGTF
  - Shaping logistics policy
Marine Corps Life Cycle Product Support: “...An Indivisible Entity...”

“...focus the efforts of all the elements of the force to accomplish the mission.”

Life Cycle Management Governance

Sustainment strategy development and execution

Program Management

Future warfighting capabilities development and integration

Advocacy for MAGTF combat power
Critical Value of the Service-owned Depots

• Reliability
• Endurance
• Flexibility
Marine Corps Life Cycle Product Support

Questions
Agenda

• Changing Environment

• Industry Efforts

• Government Efforts

• Path Forward
Changing Environment

- Weapon System Acquisition Reform Act
- Product Support Assessment
- NDAA, Section 805
- Quadrennial Defense Review
Product Support Assessment

- Outcome-based sustainment
- Clear accountability
- Enhanced business model
- Extended industrial integration
Industry Efforts
F-22 Raptor: Leading the Way

- Outcome-based
- Best from Gov’t
- Best from Industry
- Sustained Air Dominance
Government Efforts

- End to End Supply Chains
- Life Cycle Management
- Performance Based Partnership
- Joint Logistics Wargames
Next Steps

• Develop outcome-based metrics

• Refine analytic tools and BCAs

• Further develop DoD workforce

• Implement outcome-based sustainment for fielded systems