PSM Workshop

Strategic DMSMS Management & DoD DMSMS Update

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Perspectives on Management of Diminishing Manufacturing Sources and Material Shortages (DMSMS)

Types of DMSMS Management

- Reactive
- Risk-Based Proactive
- Strategic

Cost Avoidance, Readiness, and Maintaining Schedule
Reactive DMSMS Mitigation vs Proactive DMSMS Management

• Reactive -
  – Wait until you can’t buy it and then deal with the problem
  – There is a higher potential impact on Operational Availability
  – You have a brief window of opportunity to address DMSMS issues
  – Typical solution costs higher and options more limited

• Proactive -
  – Monitor parts in order to determine DMSMS early to influence tech refreshes or minimize impacts
  – Apply risk based approach
  – You potentially reduce impacts on Operational Availability
  – There is a longer window of opportunity to address DMSMS issues
  – Typical solution costs are lower and more options are available
Elements of Strategic DMSMS Management

• Augments proactive DMSMS management by:
  • Designing for DMSMS resilient systems
    • Avoid designing in obsolescence altogether
    • Delay the occurrence of DMSMS issues if they cannot be prevented
    • Further increase the likelihood of identifying low-cost options to resolve DMSMS issues that do occur
  • Applying an integrated approach to future system modification planning that prevents DMSMS issues from occurring where possible

BEST PRACTICE for DMSMS Management
Design for DMSMS

• Avoid designing in obsolescence altogether or

• DMSMS issues can be delayed by applying robust parts selection criteria, such as:
  • Standardized parts
  • High reliability with multiple (and preferably domestic) sources
  • Parts are early in the life cycle of the underlying technology
  • Parts and Supplier Quality (qualification test data or past performance data)
  • Of course, not already obsolete or counterfeit (trusted sources)
Increase the Likelihood of Identifying Low-Cost Options for Solutions

• Design to enable substitution of readily available alternatives or upgrades
  • Use a Modular Open System Approach (MOSA) to design for software and hardware

• Judiciously use commercial off-the-shelf (COTS) assemblies or COTS software in design
  • Assess the risk and suitability of using COTS assemblies or software
  • Avoid modification of COTS assemblies or software without careful consideration of implications and alternatives

• Obtain the technical data and associated data rights to develop, verify, and validate the resolutions

• Avoid the use of hazardous or exotic materials
Integrated Approach to Modification Planning

- Replace obsolete items before they can no longer be purchased

- Develop and execute a modification plan that encompasses:
  - Capability enhancements: Pre-planned improvements or new operational requirements
  - Supportability improvement based on affordability -- The need to identify and reduce the highest Operations and Support cost drivers
  - Safety enhancement based on deficiencies discovered in operational use
  - Service life extension efforts based on the need to maintain a capability for a longer period of time
  - Statutory and regulatory change based on new requirements to address, for example, environmental or security concerns
  - Technology refreshment based on technology trends and roadmaps and known/anticipated obsolescence
<table>
<thead>
<tr>
<th>DoD DMSMS Working Group Strategic Objectives</th>
<th>Parts Management Working Group Strategic Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Policy, Guidance, and Training</td>
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</tr>
<tr>
<td>• Programming and Budgeting</td>
<td>• Best Practices / Challenges</td>
</tr>
<tr>
<td>• Contract Language (Incentives)</td>
<td>• Contract Language</td>
</tr>
<tr>
<td>• Data and Data Sharing</td>
<td>• Metrics</td>
</tr>
<tr>
<td>• Recordkeeping, Metrics, and Readiness</td>
<td>• Websites, Databases, &amp; Tools</td>
</tr>
<tr>
<td>• Organic DMSMS Capabilities</td>
<td>• COTS Management</td>
</tr>
<tr>
<td>• DLA R&amp;D DMSMS Requirements</td>
<td>• Excess Inventory</td>
</tr>
<tr>
<td>• Software DMSMS Management</td>
<td></td>
</tr>
</tbody>
</table>
Policy, Guidance, and Training

- Working Group Charters
- DoDI 5000.02
- DoDI 4140.01 and DoDM 4140.01
- DAG (Chapters 1, 3, 4, and 9)
- SEP Outline
- LCSP Outline
- **DoD DMSMS Instruction**
- DoD DMSMS Manual
- SD-22 DoD DMSMS & SD-19 Parts Management Guidebooks
- DAU Courses (CLL-200, 201, 202, and 207) and Websites
• Establishes and implements risk-based, proactive DMSMS management throughout the life cycle of all DoD items

• Evaluates all DoD system designs and redesigns for potential DMSMS cases

• Implements resolutions if necessary to mitigate or minimize negative impacts from risks of DMSMS

• Implements improvements to DMSMS management processes throughout the life cycle of all DoD items across the DoD enterprise
Responsibilities

• Military Departments, DLA, and MDA
  • Establishes policy …
  • Designates implementation office
  • Shares cases with GIDEP
  • Ensures supply organizations identify issues and risks
  • Establishes internal reporting requirements
  • Designates DoD DMSMS Working Group member
Responsibilities

• Directs organizations responsible for DMSMS management to:
  • Develop DMSMS Management Plan (DMP)
  • Ensure data rights in contracts and maintain data
  • Evaluate designs and redesigns for DMSMS
  • Require timely notification from contractors
  • Assess risks during logistics assessments and technical reviews starting at PDR
  • Communicate with supply organizations on risks identified
  • Mitigate risks and resolve issues in a timely manner
  • Program and budget for operations and resolutions
Programming & Budgeting

- Best Practices
  - Proactive DMSMS Program
  - Forecasting
  - Historical Data
  - Technology Refresh Planning / Roadmaps

- Working Capital Funds

- Legislative Proposals
  - Providing the authority for requiring expedited notification of obsolete parts in DoD weapon systems
  - Performing greater than two-year life-of-type buys for parts that are obsolete

- Financial Management Regulation
Report of the Advisory Panel (aka the Section 809 Panel) Codifying Acquisition Regulations was released in January 2019

- Recommendation 42, among others, established a sustainment program baseline and addressed issues related to sustainment funding
  - Reduce budgetary uncertainty
  - Increase funding flexibility
  - Enhance the ability to effectively execute sustainment plans
  - Address emergent sustainment requirements
• Ambiguity in DoD financial regulations causes sustainment requirements to be budgeted in the wrong appropriation account

• Programs cannot be supported because funding in the correct appropriation is not available during execution years

• Sustainment requirements budgeted in an O&M appropriation are affected by the availability of funding when they are needed in execution year

• The Section 809 Panel reached out to DAU to “develop a way for Product Support Managers and Program Managers to budget and plan for obsolescence of parts and components of a weapon system”

• The DAU team specifically found that Program Managers and financial managers are misinterpreting the FMR with regard to obsolescence
DMSMS Contract Language

• DFARS Section 246.871 Identification, Reporting, and Replacement of Obsolete Electronic Parts
  • Process for the analysis of part availability and identification of obsolete electronic parts and end items, components, and assemblies
  • Process for reporting obsolescence to GIDEPP
  • Process for notifying contracting officer(s) for all affected contracts
  • Process for recommending suitable replacement parts or other solutions

• DMSMS Contracting Guide
  • Government & Industry developed
  • Provides clear, practical guidance to any size program, at any phase of acquisition, using any DMSMS management strategy
  • 5 Data Item Descriptions (DIDs) approved
  • Contract Data Deliverable List (CDRL) suggestions

• Incentives
• Provide clear, flexible guidance on the records that a Program Office can keep that
  • Gives a clear understanding of the effectiveness of their DMSMS operations
  • Will be used by all Programs
  • Can be used by higher level activities to better understand how DMSMS is being managed and what the costs are

• DoDM will include metrics required
• There is a DID in process that also includes the parts of the tables applicable to contractors

• Benefits
  • Greater fidelity cost estimates for DMSMS resolutions
  • Improved cost estimates for purchasing inventory for LON Buys
  • Improved ability to develop and fund Programming and Budgeting requests for DMSMS resolutions and DMSMS management operations
  • Improved evaluation of contractor cost estimates for resolving DMSMS issues and conducting DMSMS operations
  • ROI: Cost of being reactive, cost avoidance for being proactive
  • Understanding impacts on schedule and operational availability / readiness
• December 2-5, 2019
• Phoenix Convention Center (Hyatt / Renaissance)
• Strengthening Parts & DMSMS Management to Improve Readiness & Affordability
• Defense Manufacturing Conference (DMC)
• Training, Panels, Technical Sessions, and Exhibit Hall
  • Strategic DMSMS Management
  • Parts Management
  • Best Practices & Lessons Learned (includes Software DMSMS Management)
  • New Innovations
  • Industrial Base and Mechanical issues
  • Counterfeit Mitigation Strategies
  • Cyber Security
• www.dmsmsmeeting.com
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