Summary of the Spring 2011 Parts Standardization & Management Committee Meeting

April 12-14, 2011

Held at LMI Government Consulting, McLean, VA

***Introductions*:** the military co-lead provided a brief introduction of the PSMC, including its charter, structure, leadership, participants, and internet resources related to parts management. Each attendee introduced himself/herself and described their connection to DoD parts management.

Overview of the PSMC: The Boeing-St Louis representative gave an in-depth overview of the PSMC, including: its role as an advisory body for DSPO regarding parts management policies and procedures; its responsibility for completing the reengineering of DoD Parts Management; its function as an open forum for government and industry; the key benefits of parts management (i.e., reduces costs, mitigates DMSMS and counterfeit issues, improves system readiness, availability and maintainability); and current focus areas (Policy/Contracts/Systems Engineering/Education, Tools, Counterfeit Parts are the three most active subcommittees).

Review of 2010 Fall PSMC: The chair of the Policy/Contracts/Systems Engineering/Education subcommittee reviewed the 2010 Fall PSMC Meeting Summary and action items.

The PSMC's Fall 2010 Conference was abbreviated from its regular two and a half day format to just one day in order to be held in conjunction with the annual DMSMS/Standardization Conference. Because of the short duration, the number of presentations and the time the subcommittees could spend working on tasks was extremely limited.

Briefings were presented on the following topics: (a) DSPO Perspective on Parts Management; (b) Parts Management in Systems Engineering; (c) Counterfeit Update – Industry; (d) Counterfeit Update – DoD; (e) Common Parts Catalog; (f) Enterprise Standardization; (g) SAE Part Testing (Counterfeit); and (h) DLA Connectors Project. Brief subcommittee breakout sessions were held for the Tools Subcommittee on its own and the Policy / Contracting / Systems Engineering / Education and the Counterfeit Subcommittees combined.

The Policy, Contracting, Systems Engineering, and Education Subcommittee had reviewed MIL-STD-3018 and determined it needed to be updated to address changes that had taken place since its issuance. Also this subcommittee has started to review systems engineering documentation to develop recommendations to address the parts management discipline. The newly formed Counterfeit Subcommittee has started an effort to incorporate counterfeit parts requirements/verbiage into MIL-STD-3018. The Parts Management Tools Subcommittee focused on developing and implementing recommendations to enhance participation in the Defense Parts Management Portal.

ACTION ITEMS:

1. Review MIL-STD-3018 for recommended changes and possibility of adding counterfeit parts element. (Policy, Contracting, Systems Engineering & Education Subcommittee)

2. Review System Engineering documents for incorporating appropriate parts management language, including: SE tech review checklists, SEP preparation guide, and SE contracting guide. (Policy, Contracting, Systems Engineering & Education Subcommittee)

3. Review ways to have the DPMP Portal return an early "hit" on a general "parts management" search. (Tools Subcommittee)

4. Counterfeit Subcommittee to start work on verification criteria. (Counterfeit Subcommittee)

5. Determine how to address mechanical counterfeit issues. (Counterfeit Subcommittee)

6. Draft Counterfeit Subcommittee Charter. (Counterfeit Subcommittee)

7. Draft words to update MIL-STD-3018. (Counterfeit Subcommittee)

8. Obtain POCs from Service Reps. (Counterfeit Subcommittee)

Participants Survey Results from 2010 Fall PSMC: The chair of the policy subcommittee reviewed survey results from the 2010 Fall PSMC. Unfortunately, of the 62 attendees, only 22 completed surveys. Of those 22, 3 were first time participants. On the whole, the comments were positive regarding the facility and opportunities to "network" with other conferees, and the presentations offered. Counterfeit briefings were particularly appreciated.

Overview – DSPO Perspective: The DSPO Deputy Director provided a DSPO perspective.

The Deputy Director of DSPO provided an introductory DSPO perspective. He stated that since DSPO had transitioned from reporting to Logistics to reporting to Systems Engineering effective March of 2010, this has produced more opportunities to promote Parts Management and Standardization earlier in Systems Engineering processes.

He requested that PSMC participants from government, military, and OEMs provide examples of Parts Management accomplishments and success stories to enable development of a strong business case in favor of Parts Management, to help sell the program within DoD. Anyone with examples may submit them to the DSPO Parts Management focal point.

He recommended that PSMC participants consider attending the annual DMSMS/Standardization Conference, to be held in Hollywood Beach, FL in late August/early September of this year.

Parts Management in Systems Engineering: Director, Mission Assurance, Systems Engineering, Office of the Secretary of Defense (Keynote)

The Director of Mission Assurance (DSPO's functional oversight) spoke to the PSMC, stating that Parts Management is "absolutely crucial", noting that a reduction in parts count pays dividends throughout the program lifecycle from Design through Supportability. He stated that two major events occurred during the mid 1990s; DoD workforce reductions through lack of new hiring, and transition to dual use commercial standards, both of which reduced the ability of Parts Management to influence DoD designs. He stated that DoD plans to refocus on Parts Management and related engineering topics under the systems engineering umbrella, addressing such topics as Reliability and Manufacturing Capability Assessments.

The Relationship of Parts Management Activities to Manufacturing Readiness

A support contractor from IDA (who provides support to OSD Systems Engineering) presented material suggesting that Parts Management activities could be related to Manufacturing Readiness Levels (MRL) assessments and criteria. GAO report 10-439 dated 22 Apr 2010 recommended use of MRLs in DoD Acquisition programs. The DoD MRL desk book can be found at http://www.dodmrl.com. (See the presentation for details.)

DoD Counterfeit Materiel Program

The OSD Logistics & Materiel Readiness lead for mitigating counterfeit gave an update presentation on the DoD Counterfeit Materiel Program. He recently inherited the responsibilities from another action officer. He stated that a

DoD directive type memo (DTM) on the counterfeit topic is in draft. He stated that the counterfeit screening and detection processes currently being used work relatively well, but the process for "when a counterfeit part is identified, how is it addressed?" needs improvement. He suggested incentivizing use of a reporting system. He stated that DoD is developing a four-year program with objectives and milestones to coordinate anti-counterfeiting activities. He provided the following website as a good exercise for a real life example counterfeit issue: http://www.andovercg.com/services/cisco-counterfeit-wic-1dsu-t1-v2.shtml. (See the presentation for details.)

AS-5553 Verification Program

Next, a representative for ECC Corporation (www.ecccorp.org) presented on a third-party accredited AS-5553 (electronic counterfeit mitigation) Verification Program which includes a Component Chain of Custody Certification Program for demonstrable authenticity. This would be accomplished in conjunction with IECQ International Electro-technical Commission Quality Assessments. There would be a fee for assessments. (See the presentation for details.)

Mechanical Parts/Materials Industry Standard

Next, a representative from SAE International gave a presentation on the status of SAE counterfeit committees SAE G-19 for Counterfeit Electronics and SAE G-21 for Counterfeit Materiel. Under SAE G-19, AS5553 was published in Apr 2009, and has been adopted by DoD and NASA, but is now under revision to make the specification more globally applicable (currently U.S. specific language in the specification). AS6081 is intended for use by brokers and expected to go to balloting soon. SAE G-21 is developing AS6174 which is similar to AS5553 but intended to be applicable to all types of materials targeted for high reliability applications. Alignment with draft DoD policy is being sought and balloting is expected Q2 2011 with publication Q3 2011. (See the presentation for details.)

DMSMS Industry Standard

A representative of Boeing Seattle presented the DMSMS Industry Standard that he and a team of industry and government subject matter experts have developed. The standard is currently under review, but targeted for publication near-term as a Tech America standard under the GEIA Avionics Process Management Committee (APMC). DoD is performing a parallel review and considering adoption of the industry standard. The DMSMS standard is intended to be supportive of the existing industry standard EIA-4899, "Standard for Preparing an Electronics Component Management Plan." (See the presentation for details.)

OEM Perspective on PinPoint Preferred Parts Project

A representative of Northrop Grumman (Linthicum) and a representative of L-3 Communications presented the status of a parts management project operating under the Headquarters Defense Logistics Agency (HQ DLA) Sustainment Research and Development. This project used the Pinpoint tool being developed by XSB to look at part selection commonality and preferred parts lists between NGC, L-3, and DLA. Northrop Grumman also used a convergence data service and developed a new part approval electronic routing process. NGC stated that this produced a $176K savings in connector commodities and $1.4M in fastener commodities. The speaker cited a 1991 Coopers and Lybrand study which assigned a cost of $9,400 for a new part introduction, as well as 2008 DoD published figure of $27,500 for selecting a nonstandard part (for the life of a system). L-3 stated they were combining the work with Silicon Expert search tool to develop tiered preference codes on their parts. L-3 stated that an internal 2009 effort had determined their cost to introduce a new part averaged $8,900. (See the presentation for details.)

Lead-Free Challenges Update

The PSMC's Military Co-lead (from the Air Force) presented on DoD Lead Free policy. He stated the following:

- Lead-Free Electronics Technology Focus Team (LFE TFT) drafted a policy statement, but no action taken by OSD
- Lead-free language was drafted for the Defense Acquisition Guide (DAG) and other directives and instructions, but no action taken by OSD
- Services and DLA have not established policy on Lead-free
- MDA and NASA do have Lead-free policy

He also gave a high level overview of the Pb Free Electronics Risk Management (PERM) consortium sponsored by AIA which includes industry and government. PERM evolved from the merger of GEIA's Lead-free Electronics in Aerospace Project (LEAP) Working Group and the DoD Executive Lead-free Integrated Process Team (ELF IPT). This organization has maintenance responsibility for the GEIA standards associated with Pb Free, and is currently drafting GEIA-HB-0005-4: Guidelines for Performing Reliability Assessment for Pb Free Assemblies used in Aerospace and High-Performance Electronic Applications. (See the presentation for details.)

A Common Model for Standard Parts Databases/Product Standards as Digital Data at Boeing

A representative from Boeing (Tucson) presented a brief update to his 2010 DMSMS/Standardization presentation, and then focused on a presentation concerning the Boeing Product Standards as Digital Data Initiative. He made a request for the PSMC and DoD to begin work towards developing a DoD digital data concept for standard parts. (See the presentation for details.)

Subcommittee Plans: Subcommittee chairs briefed their plans for the upcoming breakout sessions.

The Policy, Contracting, Systems Engineering, and Education Subcommittee - The subcommittee chair (DSPO consultant from LMI) noted that the following areas within systems engineering contain parts management direction or guidance, most of which has been strengthened recently:

- Defense Acquisition Guide (DAG) Ch 4, paragraph 4.4.1.2, Ch 5 (Logistics)
- DoD 4120.24-M, Defense Standardization Program Policy and Procedures, Ch 3, C3.2 and C3.2.4
- SD-19, Parts Management Guide

The DAU CLL206 course name is changing from "Parts Management Executive Overview" to "Introduction to Parts Management," to indicate that it provides a high-level overview of parts management for users at any organizational level.

Change Notice 1 to MIL-STD-3018, Parts Management, adding Pb free and counterfeit sub-plan requirements, is out for coordination.

Counterfeit Subcommittee - The subcommittee chair, a representative of Boeing (Seattle) reported that counterfeit specific language is being added to Materiel regulations.

The GIDEP program manager stated that the government anti-counterfeit focus will be more intense on regulated industries (nuclear, pharmaceutical, etc) vs. consumer products such as handbags, etc.

Parts Management Tools Subcommittee - The tools subcommittee facilitator (from LMI) and a representative of XSB reported. Much of the information reported was derived from the PinPoint tool developed by XSB. The XSB representative stated that there are over 60 million items on government contract in systems such as DoD EMALL, GSA, and FLIS National Stock Number databases. He stated that 46% of the time the amount of information in these systems is insufficient data detail to enable procurement. Today, PinPoint is managing 3.3 million part numbers from 84 data sites. There is an intention to do more work between PinPoint and GIDEP in the future (machine-to-machine interface).

Subcommittee Breakout Sessions:

Policy and Systems Engineering - The participants developed a first pass draft of a checklist matrix of questions for Parts Management to be used during Systems Engineering reviews such as SRR, PDR, and CDR. This was a first draft and requires further review and refinement, but was formatted comparable to other checklist content and based on MIL-STD-3018 requirements.

draft PM Design
review checklist quest

Counterfeit - After some discussion, the subcommittee agreed to develop an article for the DSP Journal, look at updates needed for SD-19 Parts Management Guide, and develop a roadmap of counterfeit mitigation standards related activities.

Parts Management Tools - Focus continues around the PinPoint tool (a link can be found at the Defense Parts Management Portal (DPMP). https://dpmp.lmi.org/default.aspx. The PinPoint roadmap document will be updated, with consideration given to expanding focus commodities beyond connectors and fasteners in the future. They will also seek additional opportunities for data-sharing activities between organizations and companies such as XSB and PartSolutions, DLA, Silicon Expert, SAE, and OEMs.

General Announcements:

The Parts Management page on the Defense Standardization Office Program website has been updated to contain current references and guidance.
http://www.dsp.dla.mil/APP_UIL/displayPage.aspx?action=content&accounttype=displayHTML&contentid=38

The next general PSMC meeting will be hosted by Boeing Seattle, 1-3 Nov, 2011

ACTION ITEMS

1. (Continuation from previous meetings) The entire PSMC is asked to provide examples of Parts Management success stories in terms of both saving money and benefiting the warfighter.
2. Additional action items were assigned at the subcommittee level.