Systems Engineering Update/SD-22

Presented to the Parts Standardization & Management Committee
October 30 - November 1, 2012

IDA

4850 Mark Center Drive
Alexandria, Virginia 22311

Outline

- **News from the Systems Engineering Conference**
- **Some implications for parts management—ideas for new initiatives**
- **DMSMS updates**

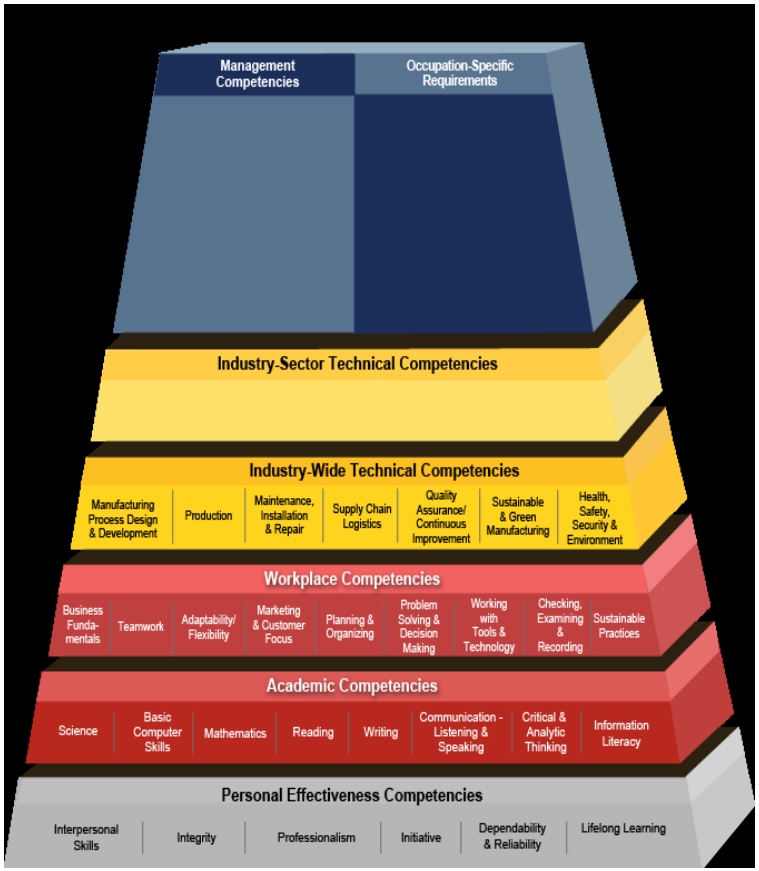
Keynote

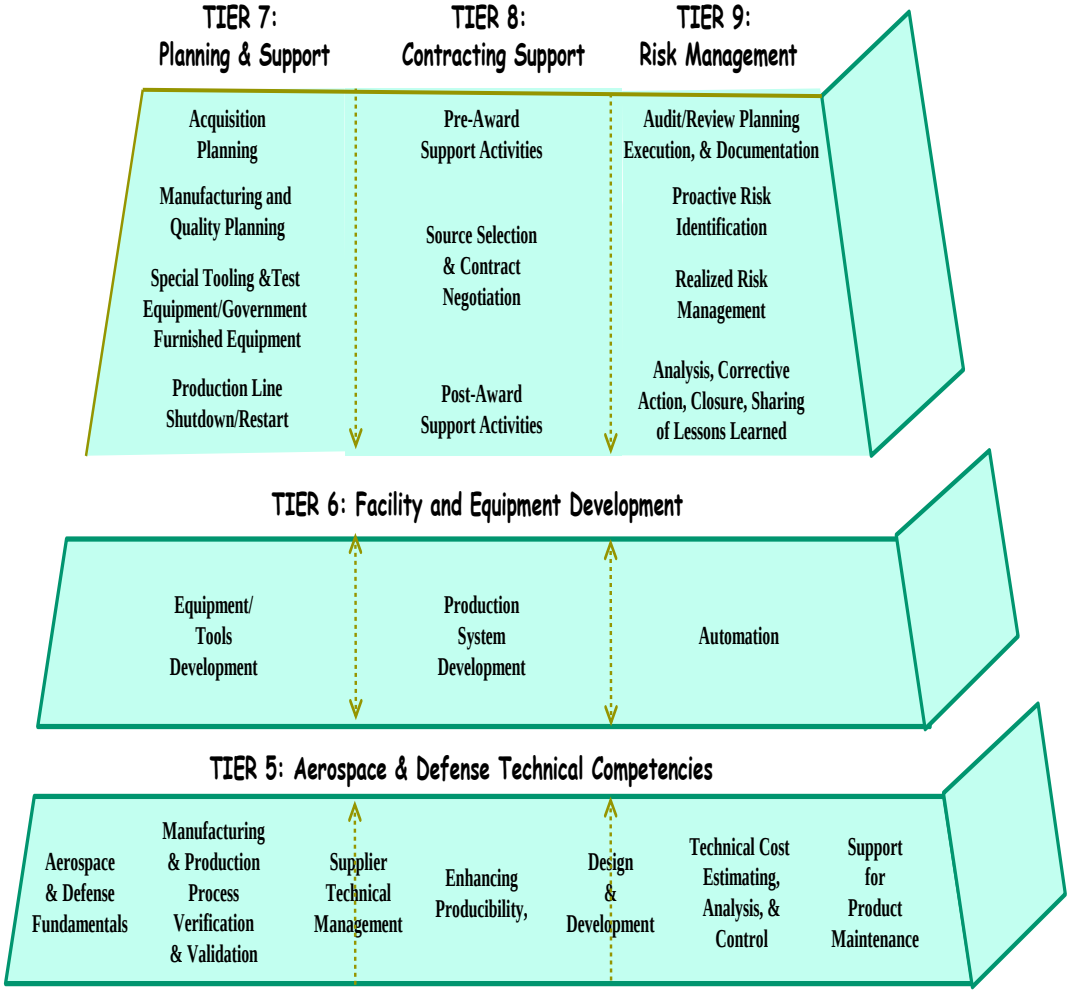
Lunch Speaker

What Is Being Done to Improve the Quality of the System Engineering Workforce

Could Be Considered to Improve the Quality of the Parts Management Workforce

- **Competency models**





System Security Engineering (SSE)

Program Protection Planning

DoDI 5000.02 Update

DoDI 5200.39	DTM 09-016 DoDI 5200.mm	DoDI 5200.39 DTM 09-016
Technology	**Components**	**Information***
What: Leading-edge research and technology Who Identifies: Technologists, System Engineers ID Process: CPI Identification Threat Assessment: TTRA, M/D-CITA Counter Measures: AT, Classification, Export Controls, Security, etc. Focus: "Keep secret stuff in" by protecting any form of technology	What: Mission-critical elements and components Who Identifies: System Engineers, Logisticians ID Process: Criticality Analysis Threat Assessment: DIA SCRM TAC Counter Measures: SCRM, SSE, Anti-counterfeits, software assurance, Trusted Foundry, etc. Focus: "Keep malicious stuff out" by protecting key mission components	What: Information about applications, processes, capabilities and end-items Who Identifies: All ID Process: Various Threat Assessment: Various Counter Measures: Information Assurance, Classification, Export Controls, Security, etc. Focus: Keep critical information from getting out by protecting data

Protecting Warfighting Capability Throughout the Lifecycle

* Program Protection Planning Includes DoDI 8500 series

An Early Life-Cycle Perspective on SSE to Reduce Supply Chain Risk

- **Key supply chain risks emerge in sustainment, but proper planning and mitigation must be done early in the life cycle, e.g.,**
  - **Trusted suppliers**
  - **Extra testing**
  - **Blind buys**
  - **Use of secure design standards**

- **Should parts selection criteria be updated to help mitigate supply chain vulnerabilities? Are changes a function of criticality?**
- **Parts management has a role, but no seat at the table. How can this be changed?**

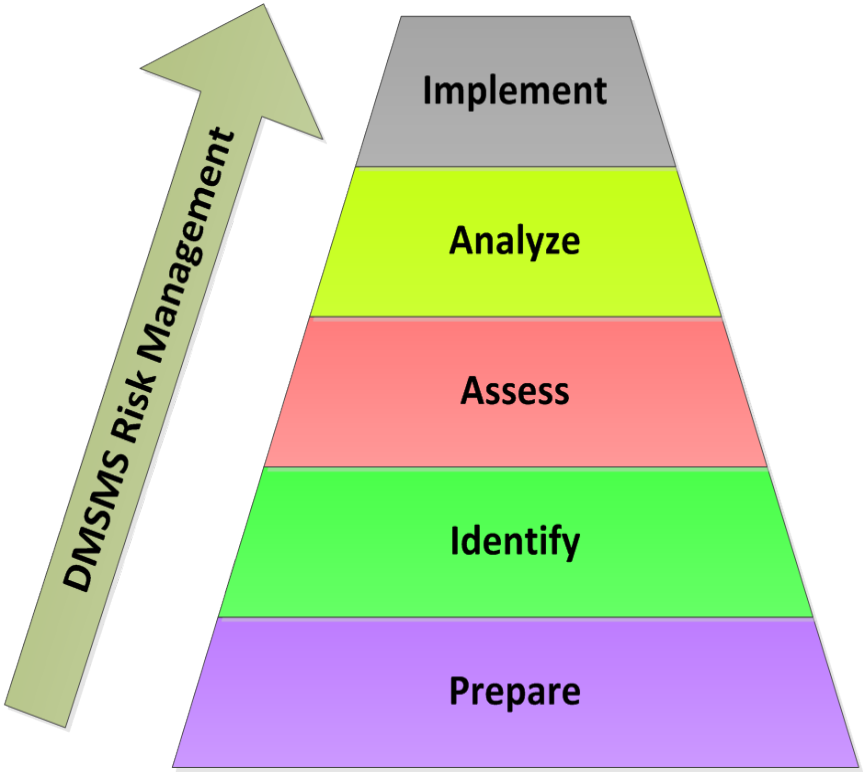
A Sustainment Perspective on SSE to Reduce Supply Chain Risk

- **New DMSMS resolutions framework established**
  - **Expanded set of cost factors developed**
  - **Effort planned to estimate values for the cost factors as a function of resolution**

- **What constraints are put on DMSMS resolutions because of the need for extra testing, blind buys, trusted suppliers, and other early life-cycle mitigations because of the criticality of the part**
  - **When are these constraints applicable?**
  - **How should they be applied?**
    - **Trusted suppliers are not permanent, may fail, be acquired or leave the business. Then what happens?**

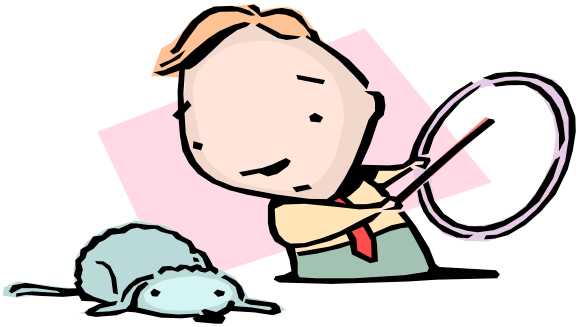
SD-22 Published

- ***Prepare:*** **Establishment of a DMSMS management program infrastructure**
- ***Identify:*** **DMSMS monitoring and surveillance**
- ***Assess:*** **DMSMS impact assessment**
- ***Analyze:*** **Resolution determination**
- ***Implement:*** **Implementation of DMSMS resolutions**

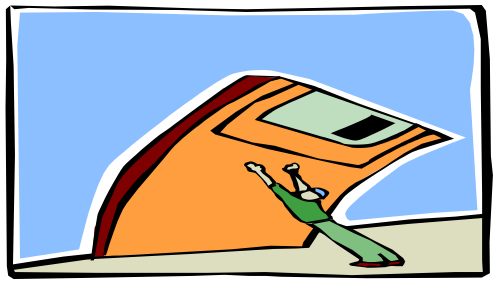


SD-22 Planned Future Enhancements

- **Training**



- **Software obsolescence**



- **Criticality**