TACOM LCMC IB and DMSMS Mitigation

Source: RANDAL GAEREMINCK, ASSOCIATE DIRECTOR

As of: 260800SEP11

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Standard Form 298 (Rev. 8-98)  
Prescribed by ANSI Std Z39-18
Agenda

• Introductions
• Purpose
• IBIT/ IBET Mission
• Automation Alley Contract
• TACOM Industrial Base Visibility and Communication Tool description and demonstration
• TACOM Industrial Base Trend / Risk Analysis
• Sustainment Engineering Risk Assessment (SERA)
• Summary/Questions
Purpose

• Provide an overview of the new Industrial Base and DMSMS mitigation tools and capability
• Demonstrate the TACOM Industrial Base Visibility and Communication Tool
• Review the TACOM Industrial Base Trend / Risk Analysis
• Provide an overview of the Sustainment Engineering Risk Assessment (SERA) objective, process, and benefits
TACOM LCMC Industrial Base Integration Team (IBIT)

Testing, Verification and Validation
  Operational Impact Analyses
  Reverse Engineering
  Strategic Materials

DMSMS Management & Operation
  Tracking of Bills of Material and Technical Data Packages

Industrial Base Engineering Team  IBET

Industrial Capability Assessments
  Defense Priorities Allocation System
  Industrial Labor Relations
  Production Readiness Review
  Surge and Contingency Operations
  Committee on Foreign Investment in the United States (CFIUS)

IB Issues PEOs, ILSC, Depots, OEMs, Etc.

One Team One Vision

Industrial Base Management Group  IBMG
Automation Alley Contract

- Automation Alley, Michigan’s largest technology business association, is currently on contract with TARDEC to provide industrial base support for the TACOM LCMC Diminishing Manufacturing Sources and Material Shortages (DMSMS) program.

- The contract with Automation Alley has created a capability to establish commercial industrial base visibility and communicate TACOM LCMC requirements with companies across the United States.

- Similar to STS work directive-based contract.
Automation Alley Capabilities

• Repair part analysis and data mining capability for families of vehicles.
• Manufacturing/Industrial base capability, trend, and risk knowledge
• Reverse engineering and administration to provide replacement parts and Technical Data Packages (TDPs)
• Locating and vetting suppliers for specific components or manufacturing technology
• Industrial Base Visibility and Communication tool – manufacturer’s contact information and integrated email communication capability
• Prototype demonstration and test planning and support
• Technical competencies in many mechanical/electrical areas
Contract Work Directives

- WD001 – Program Management
- WD002 – Industrial Base Visibility and Communication Tool
- WD003 – High Purity Aluminum Electroplating Sources
- WD004 – Industrial Base Office Sector Study
- WD005 – Transducer Sources
- WD006 – Valve Sources
- WD007 – DMSMS Case Analyses
- WD008 – TACOM Bi-Annual Industrial Base Trend/Risk Analysis
- WD009 – TACOM LCMC Legacy Vehicle Sustainment Studies
- WD010 – Replacement of Cadmium Hex-Chrome plated material on TACOM LCMC equipment
Industrial Base Visibility and Communication Tool

Objective:

• Create, update, and maintain Industrial Source access to support the Diminishing Manufacturing Sources and Material Shortages (DMSMS) effort.

• Identify current TACOM sources and potential industrial supply base sources to provide a maximum number of available options to resolve DMSMS issues.

• Analyze trends and risks associated with the U.S. commercial industrial base.

Linking TACOM LCMC requirements to Industrial Base Capabilities
Industrial Base Visibility and Communication Tool

>20,000 companies

~1,700 automotive companies

‘cloud’ storage
Geographical View of Suppliers

LunaTech Designs Google Earth plug-in
Industrial Base Trend/Risk Analysis

• Health and Risk Analysis of TACOM Industrial Base sorted by the 489 Federal Supply Classes.

• Evaluation Criteria used
  – Number of companies per FSC
  – Financial Health
  – Trends

• Bi-Annual Assessments
Industrial Base Trend/Risk Analysis

- Cage FSC Data
- Database Query Analysis

FSC: 5341
Select an FSC: 5341

Description: Brackets

Total # of CAGE Codes:
- High_Risk: 1
- Medium_Risk: 0
- Low_Risk: 0
- Not_Available: 0

Total # of Small_Business: 0

ICP_Code: Not Available
Cty: Not Available

CAGE Code Breakdown:

- FSC: 5341
- Small_Business: Not_Available

Small Business Classifications:

- Company Name: LABARGE PRODUCTS INC.
- Prescreen Score: High Risk

TACOM Databases:

- Not Available

DLA Databases:

- Not Available
Industrial Base Trend/Risk Analysis

![Database Query Interface](image)

**FSC: 1915**

**Description:** Cargo and Tanker Vessels

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<th>SDA_Cert_SDB</th>
<th>Rel_A6</th>
<th>VGB</th>
<th>MG A2</th>
<th>Ablet_June A7</th>
<th>Naick</th>
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<th>Warren</th>
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**Total # of Small Business:** 0
**ICP Code:** Not Available
**City:** Not Available

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**Record:** 1 of 4

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Escalating Support Challenges

- Increasing O&S requirements (65-80% of Life Cycle Cost)
- Equipment condition due to deployments (Degradation)
- Obsolescence of Army systems due to age (25-40 yrs)
- Loss/change of manufacturing sector for COTS (Support Strategy Risk)
- Inconsistent lifecycle sustainment policy & planning (Organic vs. CLS vs. TDPs?)
- Inconsistent engineering/design influence for sustainment (Poor Lifecycle Planning)
- Stove-piped industrial base issue investigation & resolution (ILSC & PM vs. LCMC)
- Negative economic trends impacting commercial industrial base (Industrial Base Risk)
- Environmental and safety impacts (e.g., cadmium, asbestos, Pb-free electronics)

Result = Increase in Reactive Support Issues
Solution = Proactive Logistics Engineering Support
Reactive vs. Proactive

- Backorders
- DLA 339s
- Shortages
- Obsolescence
- Etc.

Utilize methods (SERAs) to identify and prevent reactionary measures.
Sustainment Engineering Risk Assessment (SERA) Objective

• Proactively evaluate equipment data and identify industrial base related obsolescence and sustainment risk.
  • Leverage all existing available data (support strategy, usage, organic, and commercial).
  • Identify and document evidence of system, platform, or vehicle level obsolescence.
  • Provide platform or equipment managers factual documentation necessary to forecast resources via Army Working Capital Fund (AWCF), Sustainment System Technical Support (SSTS), and plan corrective actions and material change efforts.
• Support AR 700-127 (Post Fielding Sustainment Readiness Reviews (SRR)).
Define Target System for Evaluation

Clean NSN List

Extract Functional NSN Data (ILAP, OSMIS, FEDLOG, LIW)

Populate SERA Data Fields; Organize and Parse Data

Develop Algorithms, Flags, and other Gauges to Highlight Risk

Compute SERA Master Risk Priority Indicator (RPI)

Sort NSNs into Segments and Evaluate

Top 25 RPI

Top 100 RPI

Evaluate all NSNs based on various Risk Decision Rules

Report Results targeting Financial, Part Delivery, Industrial Base, or Material Risk Areas
# Sustainment Data Elements

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MS Access Views and Reports
Additional NIIN Data
Additional NIIN Data
Sustainment Engineering Risk Assessment (SERA) Benefit

- Proactively evaluate equipment data and identify industrial base related obsolescence and sustainment risk.
- Leverage all existing available data (support strategy, usage, organic, and commercial).
- Identify and document evidence of system, platform, or vehicle level obsolescence.
- Provide platform or equipment managers factual documentation necessary to forecast resources via Army Working Capital Fund (AWCF), Sustainment System Technical Support (SSTS), and plan corrective actions and material change efforts.
- Support AR 700-127 (Post Fielding Sustainment Readiness Reviews (SRR)).
Available SERA Capability

- Application:
  - Component
  - Vehicle
  - Family of Vehicles
  - PM/PEO Portfolio
  - LCMC/Command

- Data refresh:
  - One-time study (M915)
  - Quarterly, semiannual, annually (Abrams)

- Potential for other sustainment opportunities – cost and sector studies, VE, commonality assessments
Summary

• Provided an overview of the new Industrial Base and DMSMS mitigation tools and capability
  • Demonstrated the TACOM Industrial Base Visibility and Communication Tool
  • Reviewed the TACOM Industrial Base Trend / Risk Analysis
  • Provided an overview of the Sustainment Engineering Risk Assessment (SERA) objective, process, and benefits

• Discussion and questions.