Logistics Transformation

Achieving Knowledge-Enabled Logistics

1 March 2005
US National Security Priorities

• Immediately Employable Force Option
  – High readiness

• Preemptive Capability
  – Global Force posture

• Net-Centric Warfare
  – Non-linear operations

• Focused Joint Logistics
  – Coalition operations
Logistics Transformation

<table>
<thead>
<tr>
<th>Mass-Based</th>
<th>Just-in-Time</th>
<th>Sense and Respond</th>
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</thead>
<tbody>
<tr>
<td>★ More is better</td>
<td>★ Precision is better</td>
<td>★ Agile is better</td>
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<tr>
<td>★ Mountains of stuff measured in days of supply</td>
<td>★ Reduce Inventory to a minimum and keep moving</td>
<td>★ Dynamically positioned Inventory throughout</td>
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<tr>
<td>★ Uses massive inventory to hedge against uncertainty in demand and supply</td>
<td>★ Use precise demand prediction and optimization to reduce uncertainty</td>
<td>★ Use transportation flexibility and robust IT to handle uncertainty</td>
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<tr>
<td>★ Mass begets mass and slows everything down</td>
<td>★ Works great, except when it doesn’t</td>
<td>★ Supports adaptive operations</td>
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Prime Metric: Days of supply                                               Prime Metric: Flow Time                                               Prime Metric: Effects

Developing a Coherent Roadmap
SPG Language

• By 30 September 2004, the USD(AT&L) will reconcile:
  – Sense and Respond Logistics (S&RL) concept
  – Force-Centric Logistics Enterprise (FLE)
  – Focused Logistics

into a coherent logistics transformation strategy that supports distributed, adaptive operations.

• In addition, USD(AT&L) will initiate a joint effort to integrate logistics from point-of-effect to source of supply/services, across Services and Defense Agencies.

USD(AT&L) Memo

• Logistics Transformation Roadmap will provide a coherent way forward, including milestones and resources, that encompasses:
  – Force-Centric Logistics Enterprise (FLE)
  – Ongoing Distribution Process Owner efforts
  – Sense and Respond Logistics
  – Joint Theater Logistics Management

• Product will be a Transformation Roadmap for integrating logistics from point-of-effect to source of supply/services, across Services and Defense Agencies.
Logistics Transformation Strategy

- Recognized Focused Logistics as JROC-Approved Concept
- Incorporated key Sense and Respond Tenets
- Subsumed Force-Centric Logistics Enterprise initiative
- Recognized ongoing transformation efforts (TRANSCOM, JFCOM, Joint Logistics, Joint Integrating Concept)
- Provided Strategic Milestones to enable future refinement
Key Remaining Issues

- Full integration of intel, operations, logistics, and a net-centric environment in the Global information Grid?
- Network hosted business rules for sourcing and lateral redistribution
  - Including allied material?
- Industrial base responsiveness to demand signals
  - With a “build-to-order” industry?
- DoD capability to process demand signals (that are not requisitions)?
  - Sensor suites and backfitting to fielded systems
  - Routing and response messaging
- Expanding Combatant Commanders directive authority?
- Broader global sourcing of material and services?
- Reduced theater logistics footprint, relying on reach back capability?
- DoD capability to document, translate, and manage commander’s intent and situational awareness into appropriate logistics actions in an automated process?
- Dramatic increases in logistics process integration
  - Which requires increased systems integration?

*Joint Logistics Board will consider these issues over the next 18 months.*
Automatically generates re-supply requirements information and provides platform health info...

**Sensor-Based**

Automatically feeds Army Shared Data Environment

**Self Monitoring**

Embedded Diagnostics and Prognostics

**Self Reporting**

Track health and status of installed components

Synchronized

An installed part of the vehicle

**Enterprise Resource Planning**

**STAMIS**

**GCSS-A Interface**

**Antenna**

**Fuel Status**

**Automatic Identification Technology**

**Subsistence Status**

**Personal Tracking**

**Supply Status**

**Crew Indications** (Operator’s Station)

**Data Bus**

**Reasoner**

**Maintenance Aid**

**IETM**

**Serial Item**

**AIT/SIM**

**Crew Status..Health**

**Ammunition Status** - QTY by type

Software that integrates all the information to identify impending failure, order parts

An installed part of the vehicle

Specialized software and/or hardware (laptop)

To assist in maintenance management, troubleshooting, parts ordering, status

Fuel sensor

Ammo sensors

H20 sensor

Sensors

**Data Base**

**Crew Display**

**ERP**

**STAMIS**

**GCSS-A Interface**

**Global Combat Support Systems Army**

**Serial Item**

**AIT/SIM**

**Interchangeable Electronic Technical Manuals (software) to troubleshoot, test, document, report**
Stryker

Averaging 16-20 days for parts to be shipped from the United States to the unit.

98% current OR Rate (total)
94% average OR Rate over 189 days of combat operations.

OIF: 200 Engagements
No Kills or Mobility Kills
No Soldiers Lost
“I just did a year in Iraq…. If we did not have [Stryker], there would have been a lot of dead Joes.”

“Stryker is an urban pacification vehicle. I love it.”

“I personally would rather get out of the Army than go somewhere that doesn’t have the Stryker.”

-Sgt. John Hedrington*

“The Stryker Isn’t a poster child gone bad. It has saved the lives of many of my fellow soldiers.”

“One of my sister platoon’s Strykers was hit by five rocket-propelled grenades and everyone on that crew is still walking.”

“Our weapons were plenty for the missions we were placed in.”

“The tires lasted longer than track pads.”

-Staff Sgt. Johnathan Vines*

*Quoted in Defense News 1/17/2005
Today’s Distinguished Panel

• Mr. Dave Pauling – Assistant Deputy Under Secretary of Defense (Maintenance Policy, Programs, and Resources)

• Mr. Richard Wylly, Director, Government Business Development, Collins Aviation Services, Rockwell Collins, Inc.

• Mr. Sheldon Margolis, Director, Lifetime Support, Lockheed Martin Maritime Systems and Sensors
Key Issues for Panel Discussion

- What is industry’s performance to date in support major weapon systems in OEF/OIF?
- How can we achieve continuous improvement and agility in our weapon system support processes?
- What is DoD and industry doing to capitalize on prognostics to enable “Sense and Respond Logistics?”
- How can DoD incentivize industry to become “world-class” supply chain managers and increase agility?
- What are the barriers to global sourcing of weapon system support products?