NDIA
27th Annual National Logistics Conference & Exhibition

Panel Discussion

“Developing systems and critical thinking skills in national security logistics”

31 March 2011
Miami, FL
Today’s Panel

**LtGen Chris Christianson, USA (Ret)**
Director, Center for Joint and Strategic Logistics, National Defense University; Moderator

**MajGen Joe Brown, USAF**
Commandant, Industrial College of the Armed Forces, Fort McNair, Washington, DC

**Mr. Rick Blasgen**
President and CEO, Council of Supply Chain Management Professionals (CSCMP), Lombard, IL

**Mr. Eric Peltz**
Associate Director, RAND National Security Research Division; Director, RAND Supply Chain Policy Center, Santa Monica, CA
Systems & Critical Thinking...

“Why is it important?”

**The Environment:**
- Uncertain...Ambiguous
- Complex...Volatile
- Global Dispersion...Resource Constrained

**Leadership Knowledge:**
- Cost-Based Decisions
- Performance Based Partnerships
- Risk Allocation
- Value...Competition
- DOD Efficiencies
- Life Cycle Systems Mgmt...
- Total Ownership Costs
- Affordability
- Inherently Governmental
MajGen Joe Brown, USAF

Commandant, Industrial College of the Armed Forces, Fort McNair, Washington, DC
Evolutionary Perspective

More Attention From Senior Management

Focus

Functional Orientation
• Purchasing
• Operations
• Marketing
• Package Engineering
• Transportation
• Inventory Mgt.
• Warehousing
• Manufacturing
• Suppliers
• Customers
• etc.

Supply Chain Management

Logistics

## US State of Logistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics Costs</td>
<td>$1.389 t</td>
<td>$1.339 t</td>
<td>$1.095 t</td>
<td>18.2%</td>
</tr>
<tr>
<td>% of GDP</td>
<td>9.9%</td>
<td>9.3%</td>
<td>7.7%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Trans Costs</td>
<td>$855 b</td>
<td>$872 b</td>
<td>$696 b</td>
<td>20.2%</td>
</tr>
<tr>
<td>Inv. Carrying</td>
<td>$480 b</td>
<td>$415 b</td>
<td>$357 b</td>
<td>14.0%</td>
</tr>
</tbody>
</table>
Since 1988…

Logistics Costs have risen 187%

Average annual increase = $24b

2009 decrease was $244b

Also….

As a % of GDP,

Logistics expense went from 11.5% to 7.7%

...A reduction of 33%
Top management is interested in what we do!

So why is this important?
Transparency!
In the public sector, what keeps the CEO up at night?

Shareholder Value

- Revenue
- Cash Flow
- Profitability
- Market Share
New Boardroom Expectations of SCM

- Reduce costs
- Profit contribution
- Less inventory
- Better use of capital
- Sustainability
So, what do we do?

Examine the infrastructure
- *Number of Distribution Centers*
- *Location*
- *Configuration – Speed, Flexibility*

Working capital focus
- *Must smooth out spikes/valleys*

Move fixed costs to variable
- *ZOG*

Collaborate
- *It’s not an option*
Relationships are critical

The essence of SCM is collaboration…

- involves all key participants
- working toward common goals.

Absent collaboration, the supply chain will be nothing more than a collection of firms, each following their own pathways.
Supply Chain Trends & Challenges

- **Globalization.** Growing complexity and pressure of dealing with global partners, suppliers and competition. Culture and geopolitical issues.

- **Emerging Asian countries.** China, India and Southeast Asia will become major centers of growth. Development of supply chain infrastructure and services in these countries will be enormous.

- **Increasingly complex** customer demand patterns

- **Information Technology** will continue to revolutionize the discipline.
Supply Chain Trends & Challenges

- **Growing exposure to Industry Regulation:** More local, national and global rules impacting supply chain activity and infrastructure.

- **Automation through Technology:** Greater dependence on ERP systems and other tools for supply chain management. Are we losing the human touch as our communications become increasingly electronic.

- **New initiatives:** Sustainable / green supply chains – may be being slowed by survival!

- **Panama Canal expansion:** Will provide more economies of scale and port diversification options to major US population centers
Supply Chain Trends & Challenges

- Consumer Attitudes and Demographics.
  - Aging population.
  - Growing demand for environmentally sustainable and socially responsible products by younger consumers.
  - How to meet needs and maintain loyalty of the consumer?

- Lack of Predictability. Supply chain whiplash….oil prices, commodities, currency valuations.

- Supply Chain professionals have an important role to play in communicating with decision makers the value of collaboration and cross country business.

- We need to develop cross cultural skills and a global mindset to maximize opportunities in the increasingly globalized world.
Traditional Supply Chain Functional Career Path

- Executive Level
  - Demand/Supply Planning
  - Procurement
  - Manufacturing
  - Global Logistics
  - Fulfillment

- Senior Level

- Advisory Level

- Staff Level

- Entry Level
The Evolution of SCM

Prehistoric

1950

1982

2000

How long will it take??

Inception of SCM

Full Implementation of Collaborative SCM

Warehousing and Transportation

Physical Distribution

Logistics
Innovation!

Be Creative in your Response to Supply Chain Problems
We have witnessed a rapid pace of change in Logistics/SCM operations in 50 years. Our greatest challenges lie ahead as we deal with security, constraints, harnessing technology and learning to effectively collaborate and share risks and rewards.
You think you’re having a bad day!
Our Challenge .......

It will not be easy, but . . .

It can happen.
Thank you!
Mr. Eric Peltz

Associate Director, RAND National Security Research Division;
Director, RAND Supply Chain Policy Center, Santa Monica, CA
From Supply Chain Silos to Integration: the Case for Systems Thinking

March 31, 2011
Uncoordinated Actions Get Magnified as They Propagate through the Supply Chain

A Case Study in Supply Chain Silos:
The story of a heavy, large, mechanical part
2005-2011, Southwest Asia (SWA)
Uncoordinated Actions Get Magnified as They Propagate through the Supply Chain

A Case Study in Supply Chain Silos:
The story of a heavy, large, mechanical part 2005-2011, Southwest Asia (SWA)

Start: Insufficient inventory for effective positioning overseas 2005-2006

High airlift costs

Shift to sealift for retail delivery March 07

Enroute inventory climbed dramatically

Tactical inventories drained

Vehicles down for the part rose sharply

Retail backorders skyrocketed
Uncoordinated Actions Get Magnified as They Propagate through the Supply Chain

A Case Study in Supply Chain Silos:
The story of a heavy, large, mechanical part 2005-2011, Southwest Asia (SWA)

Start: Insufficient inventory for effective positioning overseas 2005-2006
No deliveries
Nov 09 – Today (2 years of inv. remain)

Orders shut-off

High airlift costs

Shift to sealift for retail delivery March 07

Enroute inventory climbed dramatically

Tactical inventories drained

Orders shut-off

Inventories became excessive

Good regional inv

Magnified “demand” → higher DC inv

Maintenance double ordered?

Retail inventories increased late

Vehicles down for the part rose sharply

Retail backorders skyrocketed

Supply Chain Integration through Systems Thinking 30
While Intent Was for Supply Chain Integration, Silo Thinking Overwhelmed the Systems Perspective

- DoD logistics memo released with intent to reduce total costs
  - Through smart reductions in airlift use
  - Enabled by increased sealift use from
    - Overseas stockage improvements
    - Diversion of low priority shipments

- Through a series of misunderstandings, a switch to sealift for a set of critical parts occurred without the other conditions

- Led to 4-year series of cascading problems in the supply chain
  - Each functional silo executed in isolation, without commo
  - Next silo affected one lead-time away
Without Pervasive, Ingrained Systems Thinking, Silo Views Sometimes “Filter” Guidance

• A directive may describe an integrated approach
  – But implemented by people in functional jobs
  – Will they latch on to their part but not the rest?
    • “Utilize cheaper sealift vice expensive airlift when mission requirements allow.”
    • “divert, wherever practical, items to surface ... This would also involve an extensive review of items and levels we stock forward”

• What will keep them focused on the higher level goal?
  – Knowledge?
  – Metrics?
  – Coordinating mechanisms?
  – Processes/tools?
Systems Thinking Needs to Guide Both SC Design and Supporting Reward Mechanisms

• Some cases involve cross-functional/organizational integration
  – Example: High airlift costs for some low-value items
    • Systems solution: increase total inv. enabling forward stockage
      – Network design that minimizes total costs with same service
      – Implementation inhibited by functional/organizational barriers
        • Budget lines that cross
          - Account types
          - Organizations
        • Functional metrics
  
• Other typical cases involve level of aggregation
  – Shipments vs. flow through a channel
  – Item vs. supplier management
  – Supplier locations vs. delivery routes
  – Weapon system vs. unit
**Ensuring Systems Thinking and Action Comes through Comprehensive Treatment**

- Supply chain design
- Leadership emphasis
- Incentives: metrics, aligned budget lines, evaluations
- Analysis tools
- Decision authority
- Common lexicon
- Career development
  - Broadening assignments
  - Education and training
    - Functional/organizational domain knowledge
    - Other service, agency, and function awareness
Knowledge, Skills, and Abilities Most Valued for Joint, Interagency, Intergovernmental and Multinational (JIIM) Positions Are Instructive

• Interpersonal skills and other integration skills tend to be of primary importance
  – General interpersonal skills: development and maintenance of relationships
  – Knowledge of other organizations’ capabilities, culture, and processes
  – Communication skills
  – Conflict resolution and negotiation skills
• Critical thinking skills also important
• Service or functional expertise provides the foundation
• Broadening experiences contribute significantly to competence
Panel Discussion

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