Logistics - Our Military’s Backbone
NDIA 33rd Annual National Logistics Symposium
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Strategic logistics questions

Is our logistics system ready to support future military operations?

Do we have the right technologies, procurement strategies and resources to succeed?

Can we fulfill our mission of protecting Americans at home and American interests abroad?
Definition

“Logistics” is derived from the Greek adjective *logistikos*, meaning “skilled in calculating”

Process of planning, implementing and managing the movement of products and information from one point to another

Uncertain conditions

Many considerations
Need for Action

Budget predictability

Performance based outcome contracting

Technology innovations
Environment

15 years of hybrid war led to logistics transition

Hard to predict the future from the past

Near-peer competitors investing and posturing

Intense & trans-regional threat environment with “big 5”

North Korea  China  Russia  Iran  ISIL
Logistics challenges & needs

**Challenges**
- Multi-domain warfare
- Most supplies carried on ships
- Great distance from battle
- Contested environment
- GPS / communications denied
- Anti-access / Area-denial
- Cyber security
- Wide range of missions

**Needs**
- Seamless integration
- Global and mobile
- Coalition partners
- Joint system
- Position quickly
- Complete promptly
- Reduced footprint
- Innovative technologies
Budget

Funding surety

Predictability for full year planning

Logistics investments

Budget prior to 29 April

Tactical plan to achieve
Administration priorities
Opportunity

Effective maintenance and operations support

Reducing the battlefield logistics demands

Improved procurement to fully leverage public-private

- Performance-based outcomes
- Drive innovation and incentivize performance
- Key enabler for reduced budgets, increased logistics work and advanced technologies
Public-private partnerships

- Long existed in infrastructure
- Enabler for Performance Based Logistics
  - Commercial aviation “power by the hour”
- Relationship between organic and one or more private entities
- Depot maintenance focus
- 3 types: workshare, direct sales, lease
- Dependency upon commercial workforce
New Public-private partnerships

Training
- Airframe and power plant mechanics
- Air traffic controller
- Other advanced education

Military – commercial opportunities
- Mobile refinery
- Modular nuclear reactors
Innovative Technology Needs

- Reduced logistics demand
- Enhanced mobility solutions
- Decision support systems
- More reliable equipment with reduced maintenance
- Joint systems and processes
- Cyber resiliency
Demand reduction

Fuel, water, ammunition, power and energy

Water collection, purification and conservation technologies

Fuel used to power vehicle engines and for base power
  • New and efficient engine designs, hybrid and electric vehicles
  • Power distribution, micro and smart grids, and alternative energy sources

Ammunition
  • Precision munitions and directed energy
  • Transportation and packaging

Satisfy demand at the point of need

  Additive and 3D manufacturing to make parts in the field
  Autonomous vehicles that automate military operations
Mobility

Improve getting into theater and within theater
Travel by sea critical
Agile prepositioned stocks
Ground and air autonomous vehicles
Actionable intelligence needed for real-time decision making

Modeling and simulation and analysis tools

Examples

• Inform individual end users if the items they request are available at time of order
• Quantify impacts of platform and equipment decisions
• Integrated database to synchronize depot repair operations and improve visibility

Better parts forecasting and reduced depot repair time

Shared military / industry data solutions
Equipment

Improve reliability and reduce maintenance

Condition-based maintenance

- Based on condition not given schedule
- Sensors assess health of components
- Connect directly to supply chain for advanced replacement scheduling

Link between new system operational requirements and their logistics loads and life cycle costs
Joint

Improved operational efficiency
Joint supply support system
Agile and flexible resource allocation
Interoperable Enterprise Resource Planning systems
Cyber

Threats
- All logistics domains
- Supply chain
- Networks
- Enterprise Resource Planning
- Connected devices

Solutions
- Comprehensive system approach
- Risk management framework
- Network security technologies
- System architecture
Protect Americans at home and our interests abroad

Budget stability and logistics funding surety
Reform government contracting through public-private partnerships and performance-based outcomes
Apply innovative technologies
Thank You