United States Transportation Command

(USTRANSCOM)

Challenges & Opportunities

Improving Operational Effectiveness, Achieving Efficiencies, & Shaping Future Capabilities

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Overview

• USTRANSCOM 101

• Research, Development, Test & Evaluation (RDT&E) Program

• RDT&E Focus Areas

• Sample Current Initiatives

• RDT&E Process / Partnership Opportunities

• Conclusion
Mission

“USTRANSCOM Provides Full-Spectrum Global Mobility Solutions & Related Enabling Capabilities for Supported Customers’ Requirements in Peace and War.”

Together, we deliver.
Unified Command Plan Responsibilities

Together, we deliver...
USTRANSCOM Team

Surface Deployment/Distribution Command
Force = 3,920

Military Sealift Command
Force = 8,147

Air Mobility Command
Force = 125,457

Joint Enabling Capabilities Command
Force = 982

Commercial Industry Contribution
~140,000 People
$8.5B in Revenue

~552 Aircraft
~375 Vessels

Total Joint Effort

Active Duty
Civilian
Guard/Reserve

65%
84%
49%
50%

Together, we deliver.
RDT&E Program Foundation

• As the Distribution Process Owner (DPO), USTRANSCOM actively pursues collaborative partnerships to:
  - Rapidly integrate deployment and distribution capabilities to improve Joint Deployment & Distribution Enterprise (JDDE) logistics effectiveness & efficiency
  - Provide tangible cost savings to be passed back to the DoD

• Goals:
  - Develop and deploy joint, relevant technologies to improve Warfighter support while reducing costs
  - Improve precision, reliability, visibility and efficiency of the DoD supply chain
  - Assure superior strategic, operational and tactical mobility support

>$500M Services/Agency/OSD leveraged;
~90% Transition Rate (DoD metric is 30%)
RDT&E Program Foundation Basis

**UCP:** “Coordinating and overseeing the DoD distribution system to provide interoperability, synchronization, and alignment of DoD-wide, end-to-end distribution.”

**PBD 703:** “...need for a centralized R&D program for quick payoff technologies to enhance the efficiency and effectiveness of Defense distribution and transportation systems.”

**DoDI 5158.06:** “Enhance the DoD global distribution system by engaging in innovative and transformational distribution-related research, including force projection, sustainment, and redeployment/retrograde related research, ...”

**Delivering National Objectives (TCCC Vision, Jan 2016):**

- Ensure Today’s Readiness...Advocate for Tomorrow’s Capabilities...rapidly project forces anywhere...right investments ...to ensure we can deliver the Nation’s objectives tomorrow
- Advance Cyber Domain Capabilities...ensure our ability to operate in an increasingly contested cyber domain
- Evolve for Tomorrow...develop the technologies and ideas that maintain our Nation’s competitive advantage in transportation and logistics
RDT&E Focus Areas

GLOBAL ACCESS
• Rapid Distribution & Delivery Technologies
• Force Protection (cargo/equipment/lift assets/personnel)
• Sea Basing Technologies
• Rapid Construction/Port Opening
• Precision Airdrop/Aerial Delivery
• Opportune Landing Site Identification

C2/OPTIMIZATION/MODELING & SIMULATION
• Deployment/Distribution Planning & Execution
• Predictive Forecasting
• Information Visualization
• Transportation Node Optimization
• Knowledge Management
• Manipulation of Large Data Sets
• Information Analysis/Assimilation/Dissemination

CYBER
• Cyber Security
• Information Assurance
• Identity Access & Management
• Human System Interface

http://www.transcom.mil/cmd/associated/rdte/
Global Access Initiatives

**LAIRCM Enhanced Situational Awareness**
Provide drop zone situational awareness, bundle geo-location and enhance single pass airdrop operations

**Precision On-Demand Air Drop**
Provide the Nett Warrior equipped Army Small Unit the ability to call and/or direct resupply

**Enhanced Vision for Joint Precision Air Drop**
Precision guidance/delivery of airdrop bundles in GPS denied environments

**Prototype modular pumping system to address over-the-shore & inland distribution needs while informing the Army E2E Fuel Distribution System**

**Joint Universal Causeway Interface Module**
Universal/joint interface for disparate service connectors/causeways

**Joint Logistics Over-the-Shore Environmental Monitoring System**
Provides an organic environmental monitoring capability

**Dense Pack Access, Retrieval and Transit JCTD**
Demonstrate innovative technologies for vessels to rapidly, selectively access/extract densely packed LWVs and TEU containers

**Rapid repair capability to fix a damaged pier**

DISTRIBUTION A. Approved for public release: distribution unlimited.
Pairing air movement requirements and resources

Optimize air refueling planning and scheduling

Theater-wide bulk fluid rapid planning capability supporting conveyance (ground/air) & non-conveyance (pipeline/hoseline) delivery

Collaborative geospatially enabled capability for CCMD planners to rapidly develop multiple COAs & conduct deliberate planning

Predictive Analysis for Maintenance and Log

Exposing previously hidden demand pattern dynamics/variability so they can be dealt with proactively

Enhance E2E modeling and sensitivity analysis to optimize force projection, distribution & redeployment capabilities

Enhance organizational decision making by providing a holistic methodology
Cyber

Assess and align people, processes and tools to support Joint Cyber Center Operations

Operationalizing Cyber Security

Identity and Access Management

Credentialing solutions for open standards based identity providers

Cyber Mission Assurance Capability

Recognize events & implement responses to address threats & minimize mission impact
RDT&E Process / Partnership Opportunities

**Jan**
- Defense Agencies
- CCMDs
- USTRANSCOM/TCCs
- Service Labs
- Joint Staff
- DPO Partners
- CP-GD 9033
- OSD/EC&P

**Feb**
- MAM/CIO Validation; TCJ5/J4 Approved Gaps; Announcement
- ID/Validate Tech Challenges
- MAM/CIO Validation; TCJ5/J4 Approved Gaps; Announcement

**Mar - Aug**
- Receive Proposals/Construct Plan
- Proposal Submission & Prioritization
- MAM
- CIO
- Distribution Process Owner Governance
- Vet/Approve Plan

**Sep-Oct**
- TCB Approval

**Dec**
- Finalize R2/R2a Budget Exhibits

*OSD RDT&E budget exhibit submissions drives timeline

- **31 Mar** Submittal of electronic Phase I white papers
- **1-28 Apr** Phase I evaluation period
- **2 May** Phase II notifications
- **30 Jun** Submittal of electronic Phase II proposals
- **31 Oct** Notification of final selection

**Acronyms:**
- CIO – Chief Information Officer
- MAM – Mission Area Manager
- CCMD – Combatant Commands
- OSD – Office of the Secretary of Defense
- DPO – Distribution Process Owner
- TCB – TRANSCOM Corporate Board
- EC&P – Enabling Capabilities & Prototyping
- TOC – TRANSCOM Oversight Council
Questions

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