



United States Transportation Command

(USTRANSCOM)

Challenges & Opportunities

Improving Operational Effectiveness, Achieving Efficiencies, & Shaping Future Capabilities

Mr. Lou Bernstein

lou.bernstein.civ@mail.mil, (618) 220-4337/DSN 770-4337

Approved for Public Release

UNCLASSIFIED



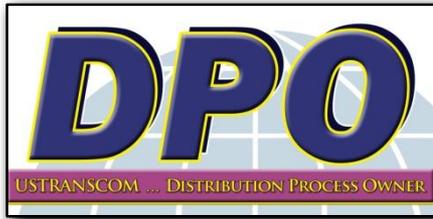
Overview



- **USTRANSCOM 101**
- **Research, Development, Test & Evaluation (RDT&E) Program**
- **RDT&E Process**
- **RDT&E Focus Areas / Collaboration Opportunities**
- **Select Current Initiatives**



Mission



SDDC

MSC

AMC

JTRU

JECC

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



The Global Distribution Network



TOGETHER, WE DELIVER.

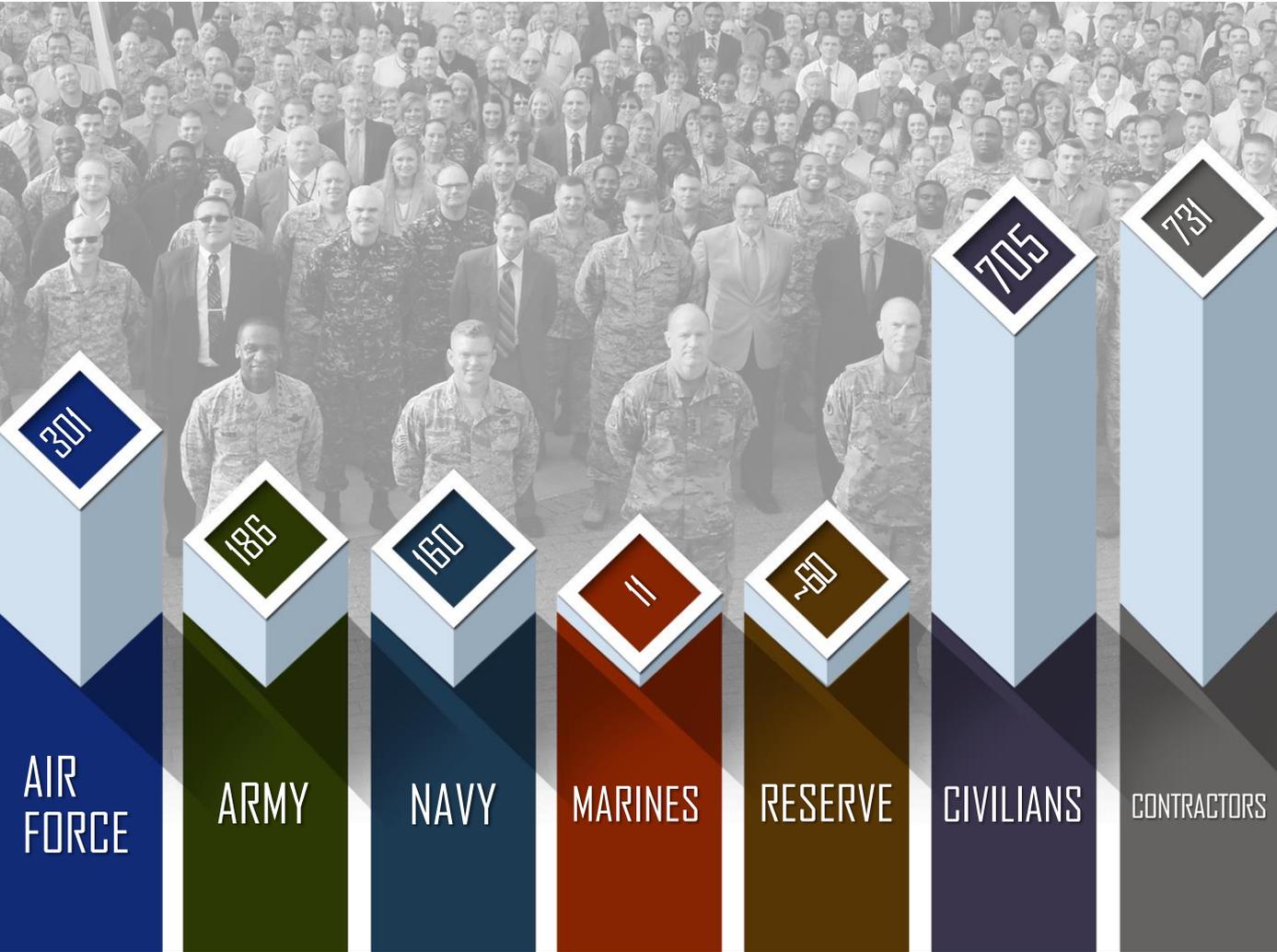
GDN is a Multi-Dimensional Network of...

- **Routes**
 - Lines of Communication
- **Modes**
 - Air, Land, & Sea
- **Nodes**
 - Enroute Infrastructure
- **Providers**
 - Comm Industry / Services
- **Access**
 - Host Nation Agreements
- **Information Network**
 - IT, Comms
- **Distribution C2**
 - Globally Positioned

...that Provides the National Command Authorities with Global REACH in Support of US National Security Objectives.



USTRANSCOM Headquarters



TOGETHER, WE DELIVER.



Based on FY 15 military and civilian authorizations

Staff Total: 2162 Military, Civilians & Contractors

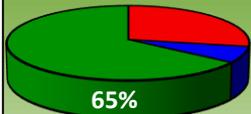


USTRANSCOM Team




Surface Deployment/Distribution Command

Force = 3,920



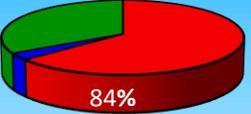
65%

Active Duty
Civilian
Guard/Reserve



Military Sealift Command

Force = 8,147



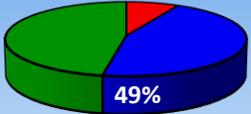
84%

Active Duty
Civilian
Guard/Reserve



Air Mobility Command

Force = 125,457



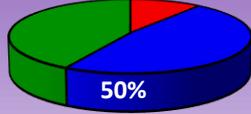
49%

Active Duty
Civilian
Guard/Reserve



Joint Enabling Capabilities Command

Force = 982



50%

Active Duty
Civilian
Guard/Reserve



Commercial Industry Contribution

~552 Aircraft
~397 Vessels




~140,000 People
\$8.5B in Revenue



Total Joint Effort



Bottomline



TOGETHER, WE DELIVER.

**Get the Warfighter
to the Fight**

**Sustain the Warfighter
During the Fight**

**Support Rapid Force
Maneuver &
Patient Movement**

**Bring the
Warfighter Home**

An Immediate Force Tonight...A Decisive Force When Needed



RDT&E Program Foundation



**UCP: “Coordinating and overseeing the DoD distribution...to provide...
DoD-wide, end-to-end distribution.”**

**PBD 703: “...a centralized R&D program...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”**

- **As the Distribution Process Owner, USTRANSCOM actively pursues collaborative partnerships to:**
 - Rapidly integrate end-to-end 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
 - Improve precision, reliability, visibility and efficiency of the DoD supply chain
 - Assure superior strategic, operational and tactical mobility support

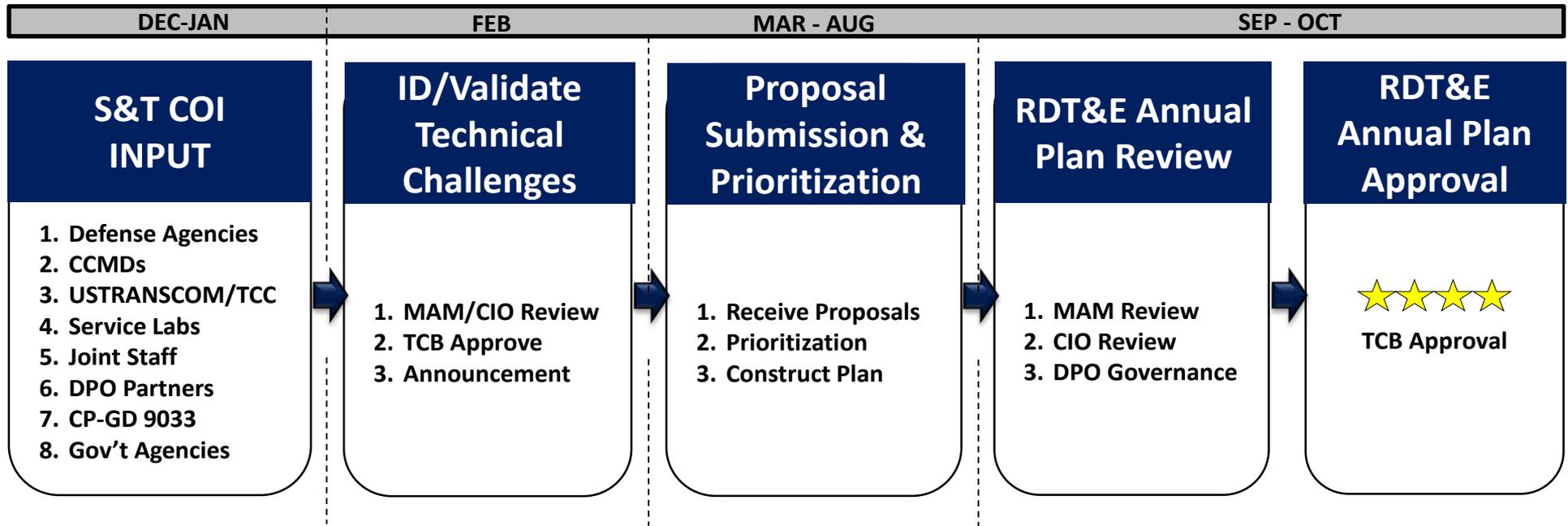
**>\$500M Services/Agency/OSD leveraged;
>90% Transition Rate (DoD metric is 30%)**



RDT&E Process



~\$30M/yr Budget Activity 4 (BA4) funding joint TRL 4 -7 innovation



CCMDs Combatant Commands
CIO Chief Information Officer
CP-GD Campaign Plan-Global Distribution
DPO Distribution Process Owner

MAM Mission Area Manager
TCB TRANSCOM Corporate Board
TCC Transportation Component Commands
TRL Technology Readiness Level



RDT&E Focus Areas (total 38)



GLOBAL ACCESS

- Rapid Distribution & Delivery Technologies
- Force Protection (cargo/lift assets/personnel)
- Sea Basing/Logistics-Over-The-Shore (LOTS)
- Rapid Construction for Ports (Air/Sea) Debarkation
- Precision Airdrop/Aerial Delivery
- Opportune Landing Site Identification
- Autonomous Aircraft Approach & Landing

CYBER/OTHER

- Cyber Security
- Information Assurance
- Identity Access & Management
- Secure Collaboration with Commercial Partners
- Multi-modal Patient Movement
- Risk Assessment
- End-to-End Visibility

C2/OPTIMIZATION/MODELING & SIMULATION

- Deployment/Distribution Planning & Execution
- Distributed Global Mobility Command & Control
- Survivable Communications
- Human System Interface
- Information Visualization
- Modeling
- Knowledge Management
- Information Science and Technology
- Manipulation of Large Data Sets

<http://www.transcom.mil/cmd/associated/rdte/>

The screenshot shows the RDT&E website header with the United States Transportation Command logo and the text "RDT&E Research Development Test & Evaluation". Navigation links include Home, Privacy, FAQ, Our History, and Contact Us. The main content area features the heading "Transforming Defense Distribution" and a description: "The USTRANSCOM Research Development Test & Evaluation program explores innovative joint technologies that address Distribution Process Owner (DPO) and Defense Transportation System (DTS) capability gaps." Navigation icons include Ongoing Projects, References, Transitioned/Completed Projects/Capabilities, FY19 Project Solicitation (Government Only), Related Links, and Program Training. Below the text are five small images illustrating various defense operations.



Leveraged DoD Research & Engineering



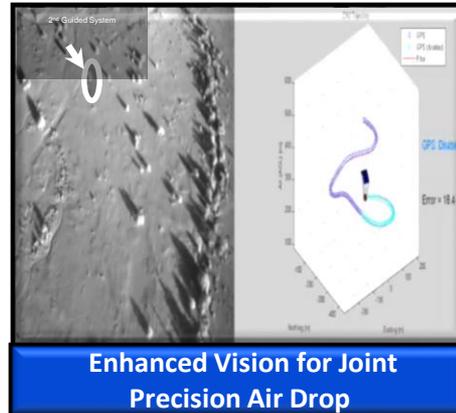


Select Current Initiatives



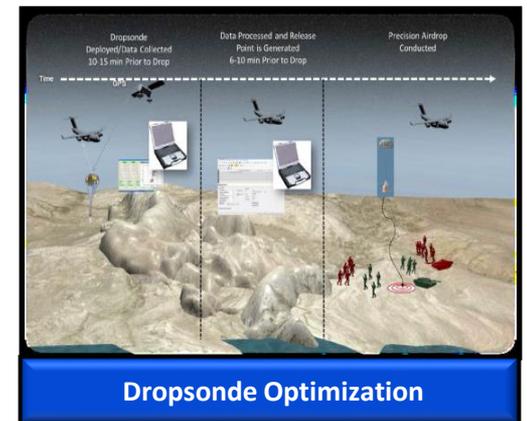
Precision On-Demand Air Drop

Provide the Nett Warrior equipped Army Small Unit the ability to call and/or direct resupply



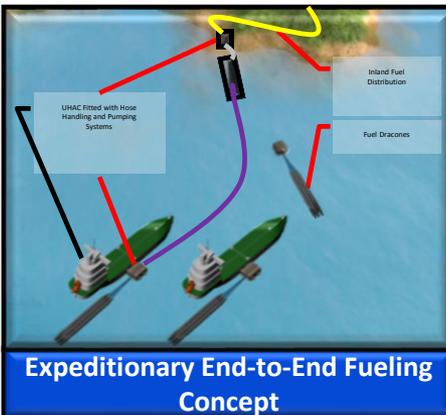
Enhanced Vision for Joint Precision Air Drop

Precision guidance/delivery of airdrop bundles in Global Positioning System (GPS) denied environments



Dropsonde Optimization

Pursue single pass airdrop capability to enhance delivery aircraft/crew safety



Expeditionary End-to-End Fueling Concept

Prototype modular pumping system to address over-the-shore & inland distribution needs while informing future Service fuel system Programs of Record



Preamble Initial Look Leading to Accelerated Results/Port Improvement via Exigent Repair

Rapid repair capability to fix a damaged pier

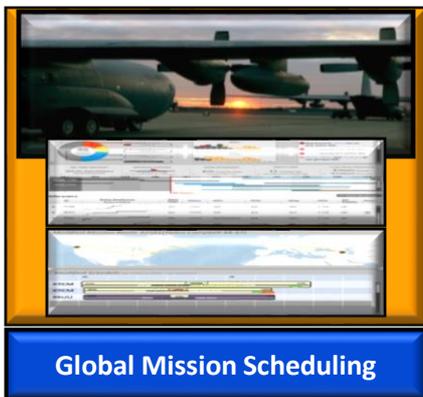


Mini-Robotic Dredge

Expeditionary dredging capability to support improved access to the shore



Select Current Initiatives Cont...



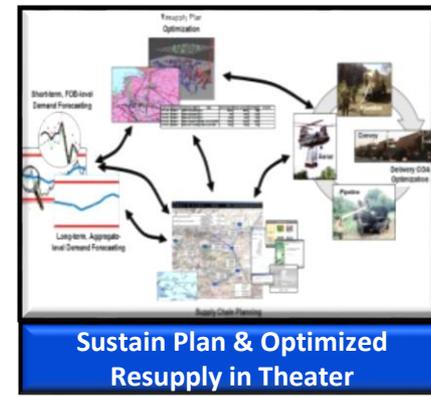
Global Mission Scheduling

Pairing air movement requirements and resources



Support Planning for Aerial Refueling

Optimize air refueling, planning and scheduling



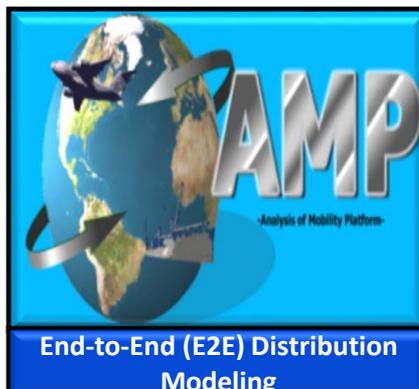
Sustain Plan & Optimized Resupply in Theater

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



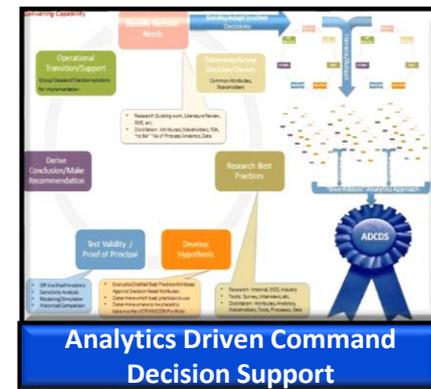
Map Based Planning System

Collaborative geospatially enabled capability for Combatant Command planners to rapidly develop multiple COAs and conduct deliberate planning



End-to-End (E2E) Distribution Modeling

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



Analytics Driven Command Decision Support

Enhance organizational decision making by providing a holistic methodology



RDT&E Info (<http://www.transcom.mil/cmd/associated/rdte/>)



Questions

Lou Bernstein, RDT&E Program Director, lou.bernstein.civ@mail.mil, (618) 220-4337
or email the USTRANSCOM RDT&E Team at transcom.scott.afb.tcj5j4.list.rdte@mail.mil