



**C A S C O M**

**Providing  
unrivaled  
sustainment  
capabilities to  
meet the  
needs of our  
Army**

# 2014 NDIA TWV Conference

6 May 2014

## Where Army Sustainment is Headed



**Mr. Bill Moore  
Deputy to the Commanding General  
U.S. Army Combined Arms Support Command**

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# Agenda



- Army Vision
- Globally Responsive Sustainment
- Army 2020
- Enterprise Resource Planning
- Science and Technology
- Way Forward Q&A

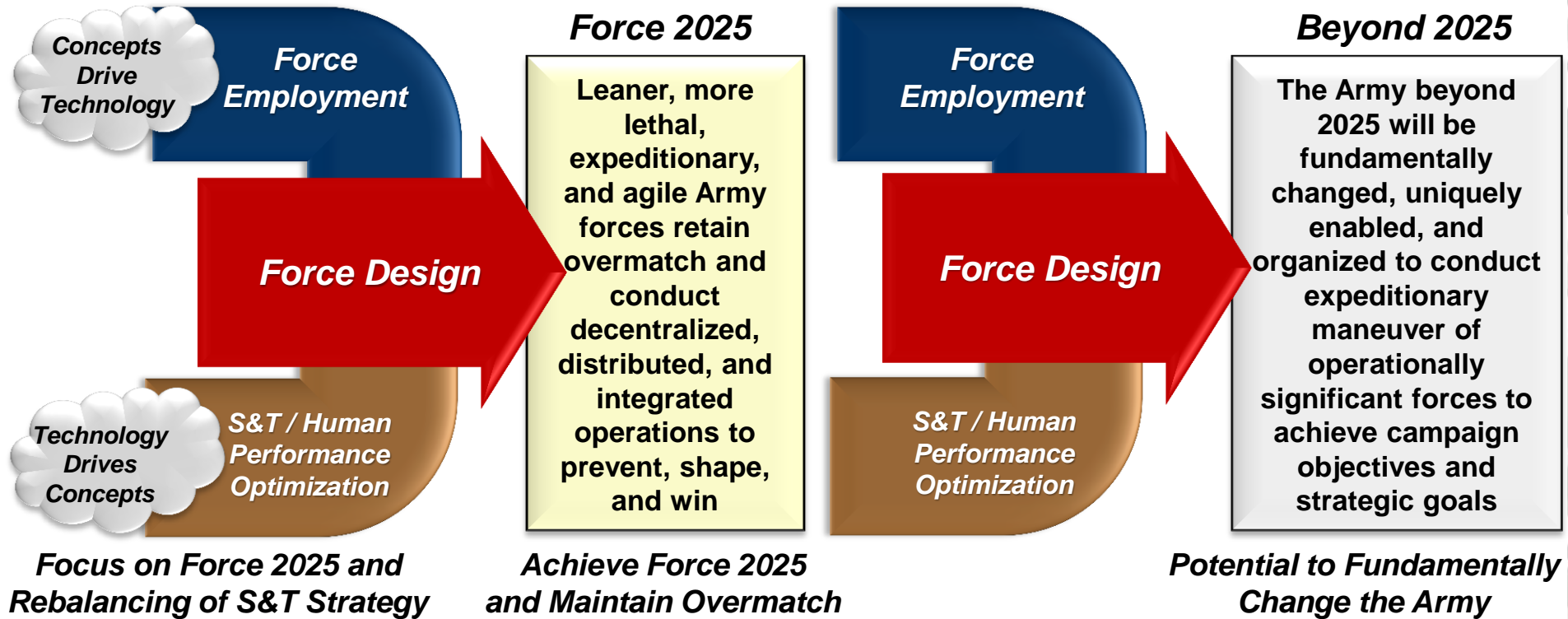




# Current Army Vision – Force 2025 and Beyond



To meet demands of the future strategic environment in alignment with strategic vision and priorities, the Army must make formations leaner while retaining capability, become more expeditionary, prevent overmatch through 2025, and set conditions for fundamental change by 2030-40.



**Strongly considering lessons from past periods of transition, Force 2025 and Beyond is a holistic modernization strategy to change the Army and deliver Strategic Landpower capabilities to the Joint Force**

**By 2025, the Army must operate differently, enable differently, and organize differently to maintain overmatch and to set the conditions for fundamental long-term change**

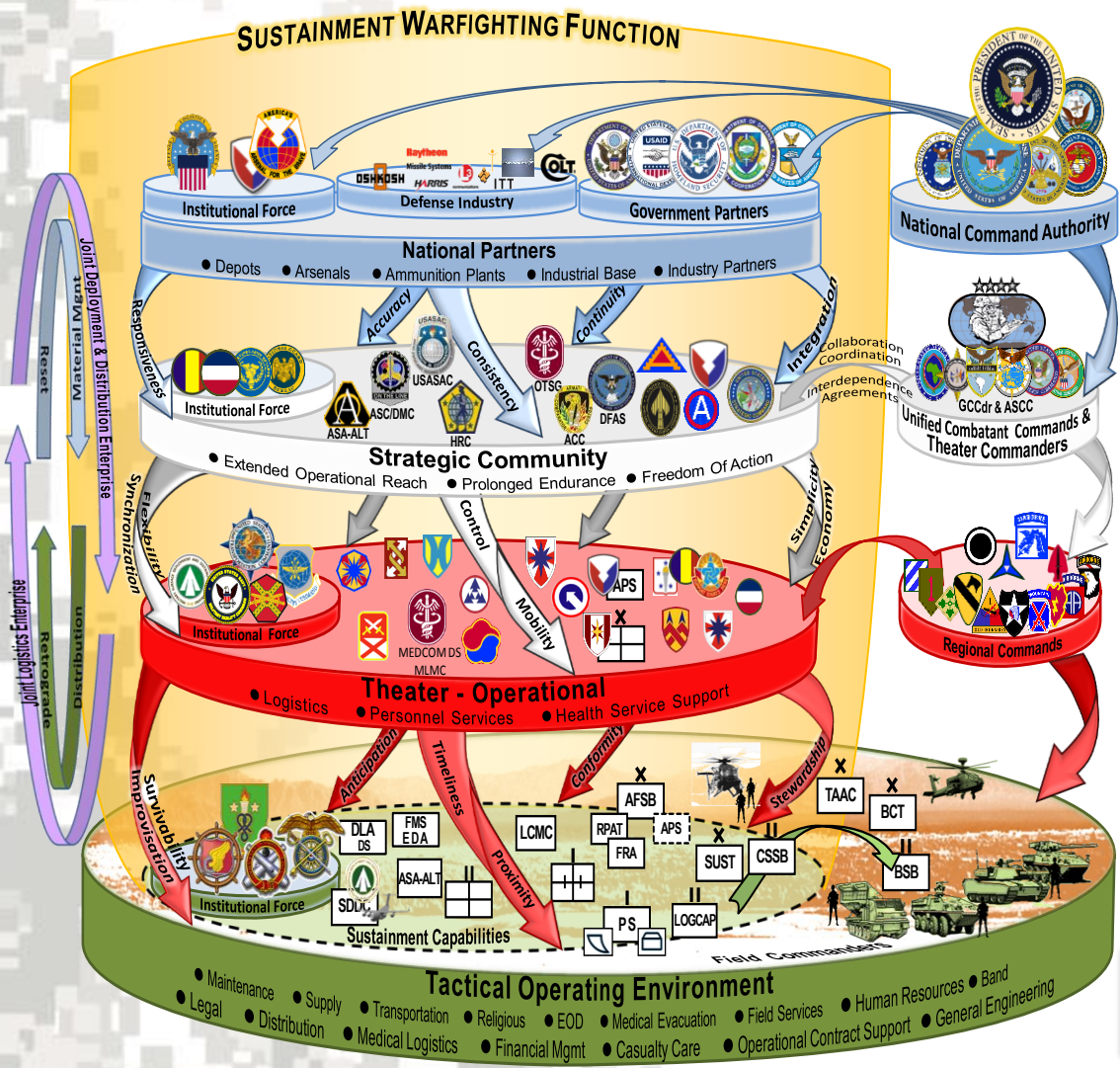
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# Globally Responsive Sustainment: Optimizing the Sustainment Enterprise



## A Unified Sustainment Warfighting Function



**Inform** policy and strategic priorities

**Address** inherent sustainment complexities across all Warfighting Functions

**Promote** collaboration across Total Army/joint partners/Institutional and Operational force

**Develop** agile and adaptive sustainment leaders, Soldiers and civilians

**Ensure** greater efficiency and effectiveness pursuant to fulfilling Title 10 obligations

**Optimizing Sustainment in support of an Expeditionary Army**

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# Army 2020



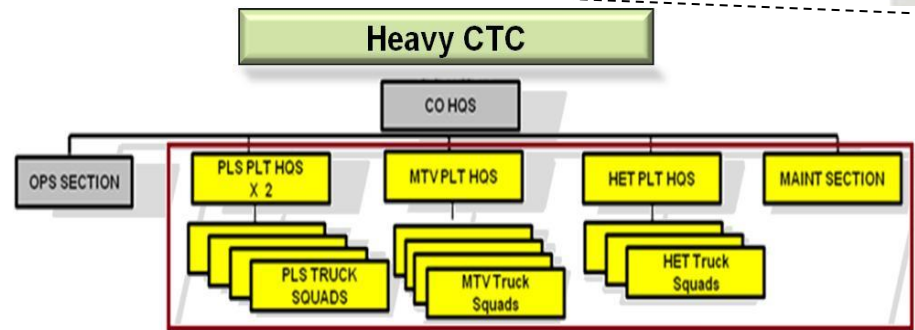
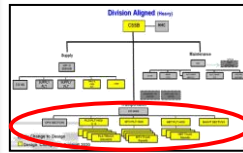
## Major Army 2020 Ideas

- Redesign Brigade Combat Teams (DP 1)
- Review Logistics Concept of Support (DP 15)
- Implement a New Tactical Wheeled Vehicle Strategy (DP 11)
- Create a New ARFORGEN Model
- Maintain an Operational Reserve
- Create Reconnaissance and Surveillance Brigades
- Project Power Despite Anti-Access/Area Denial Challenges
- Create Regionally Aligned Forces
- Integrate Special Operations and Conventional Forces
- Improve Echelons Above Brigade (EAB) Mission Command
- Enhance Army Advisory Capability
- Assign / Align Brigades to Divisions and Corps
- Ensure Reversibility and Expansibility

## Capabilities Removed From Brigade Combat Team (DP 1)

- Transfer Organic Infantry Transport to EAB\* in IBCT
- Transfer Distribution haul to EAB in AII/SBCT
- Transfer Water Production in AII/SBCT
- Transfer Fuel Distribution & Fuel System Supply Point (FSSP) in AII/SBCT
- Remove COLTs in AII/SBCT
- Transfer BEB Vertical Construction PLT, SPT SQD from Horizontal PLT and associated sustainment to EAB in AII/SBCT
- Transfer MP PLT to EAB in AII/SBCT

• New Sustainment Designs  
 • Flexible – Modular – Robust  
**Complete by 2015**



**Light CTCs** consist of a company headquarters, maintenance section, two PLS truck platoons, and two MTV truck platoons.

**Heavy CTCs** consist of a company headquarters, maintenance section, two PLS truck platoons, one MTV platoon and one HET platoon.



# ERP Employment Strategy



**CSA's Strategic Priorities – A Globally Responsive and Regionally Engaged Army**

## DECISIVE ACTION

• Extended Operational Reach

• Prolonged Endurance

• Freedom of Action

### Globally Responsive Sustainment Strategy

### Army Business Transformation

IPPS-A

GCSS-A

GFEBs

ERP

### Benefits to Tactical Commander (real time)

Make timely tactical decisions in high OPTEMPO environments /  
Eliminate multiple systems / Confirm operational readiness / Task  
organize effectively and efficiently / Move resources and associated data  
across organizations / Integrate personnel readiness / Integrate equipment  
readiness / Provide budget visibility / 360 degree asset visibility

### Benefits to the Army

Improved Readiness, Auditability, Efficiency

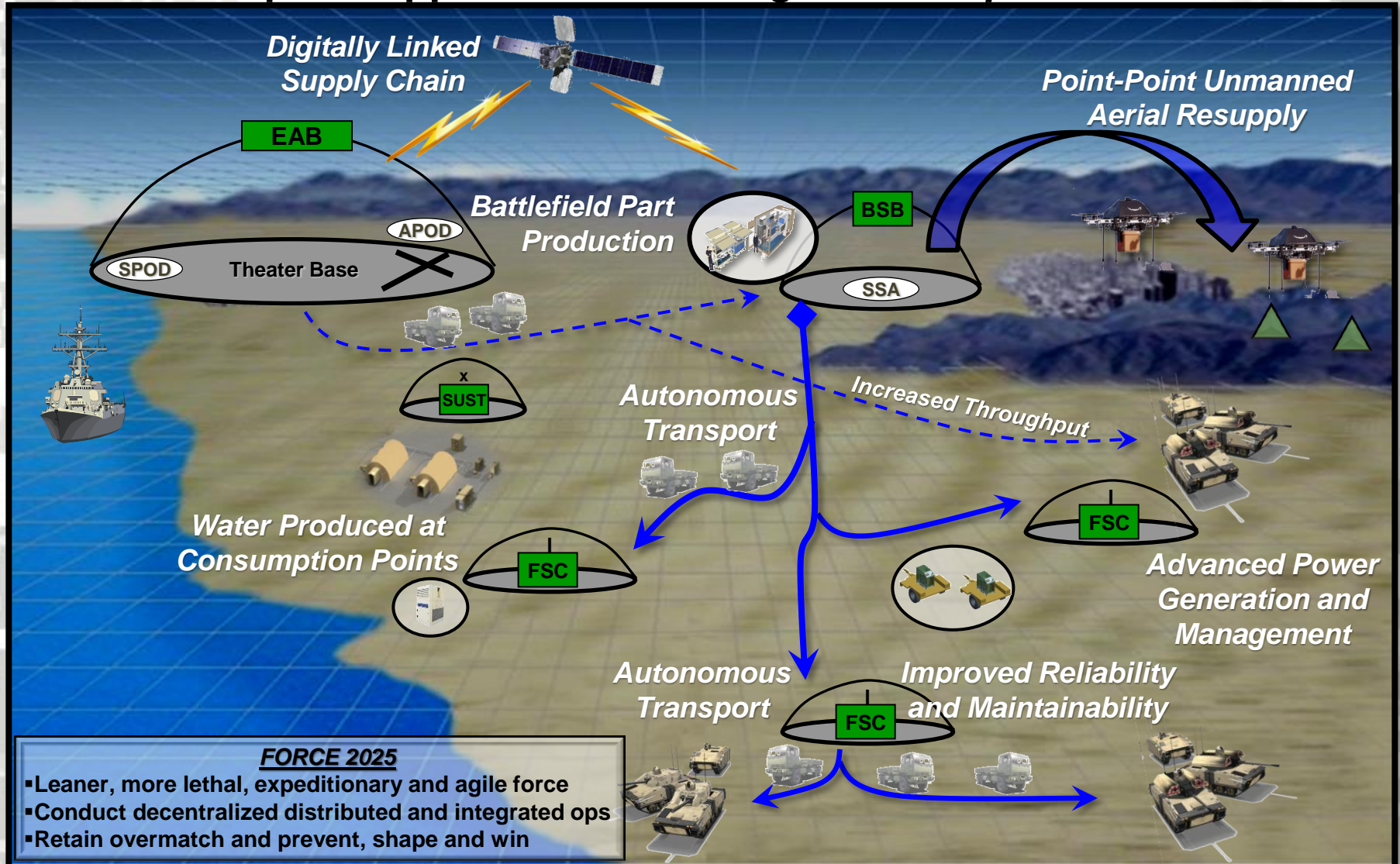
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# Imagine This...



## Conceptual Application -- Moving the Enterprise Forward



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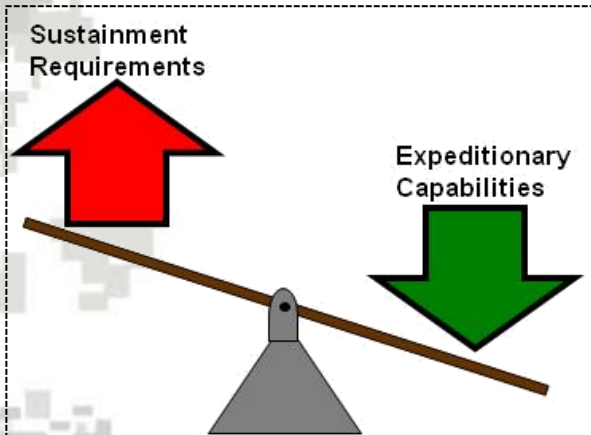
# CASCOM Methodology



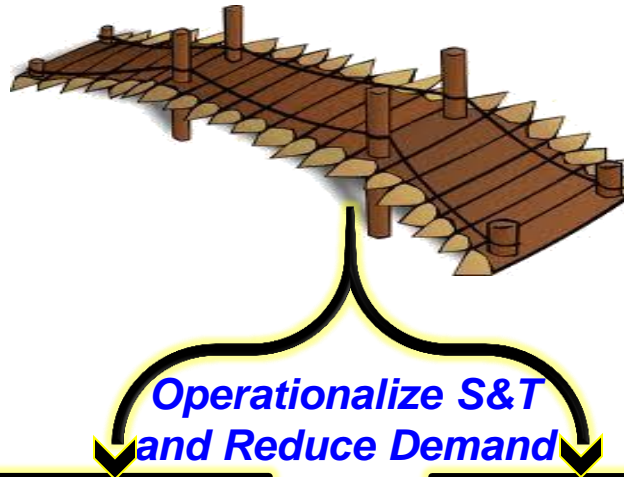
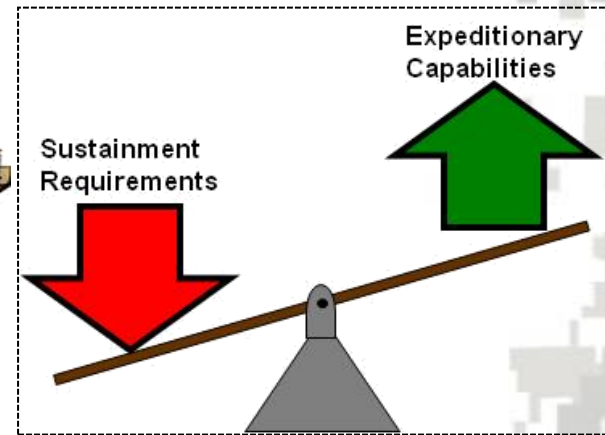
The Total Army Challenge: *Reduce Demand*

- ❑ Demand determines sustainment requirements
- ❑ Reducing demand increases expeditionary capability

How do we get from this...



To This?



## Capability Requirements

- ✓ *Automate Soldier Tasks*
- ✓ *Produce at the point of need*
- ✓ *Reduce demand & increase capabilities*
  - *Change demand characteristics*
  - *Improve reliability & maintainability*



*Yield*



## Potential Benefits

- ✓ Reduced sustainment requirements
- ✓ Increased expeditionary capabilities
- ✓ Offer senior leader options
- ✓ Shape S&T investment strategy

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# S&T Solution Candidates



## Top *Game-Changing* Technologies

## Yielding the *Potential Benefits*

### Autonomous Mobility (AMAS)



*Solution: reduce Driver/TC demand*

- Full & Semi-Autonomous Potential
- Changes dynamics of convoy ops
- Limitation: cultural resistance (trust)

1

### Cargo Unmanned Aerial Systems (UAS)

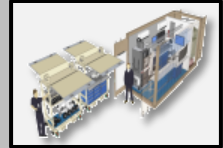


*Solution: increase expeditionary capability*

- Increases delivery frequency
- K-Max capacity: 4,500 lbs at 12K ft
- Limitation: prioritization & funding

2

### Additive Manufacturing (AM)



*Solution: meet demand at point of need*

- Decrease supply chain demand & ASL lines
- Advanced Medical Applications
- Limitation: policy and design rights

3

### Water from Air

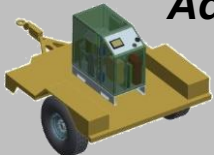


*Solution: meet demand at point of need*

- 7.5 ton trailer mounted system
- Rate: 5-24 gal/h
- Limitation: fuel to water ratio

4

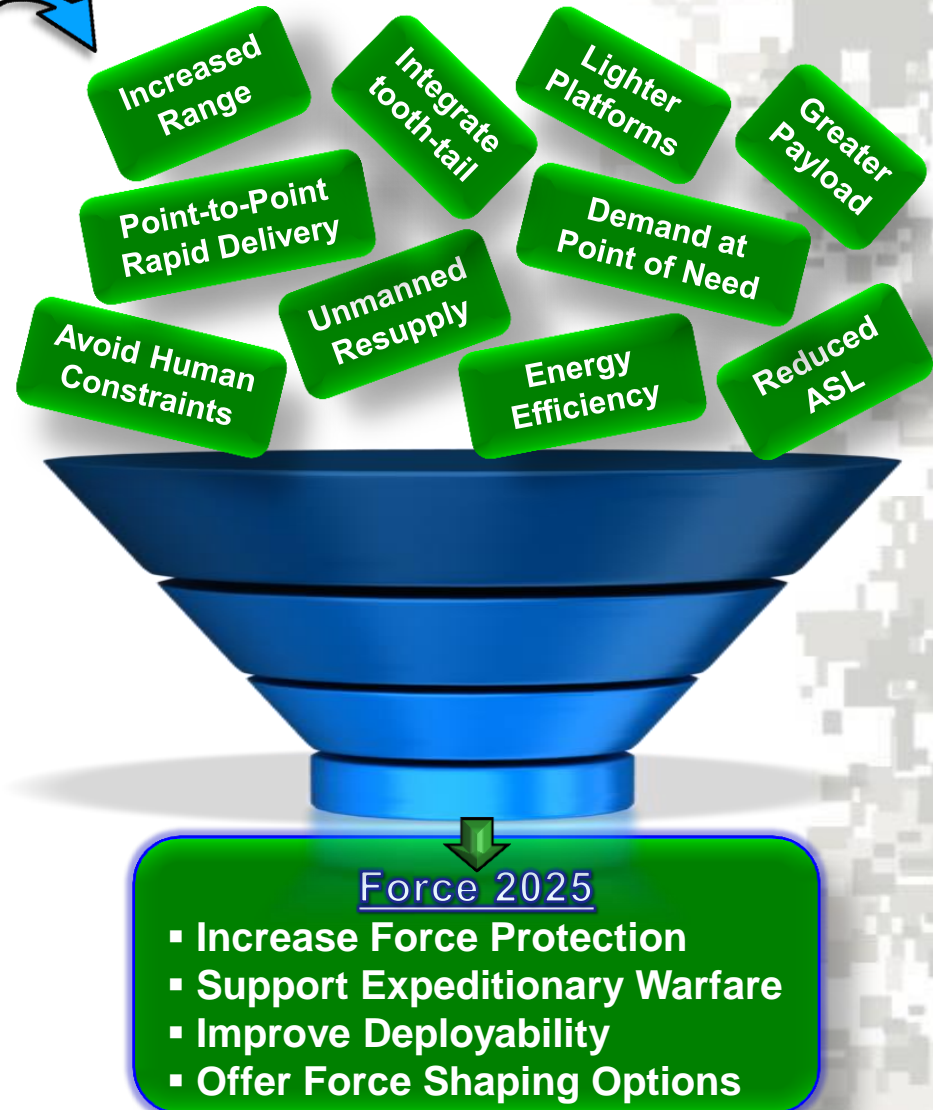
### Advanced Power Generation



*Solution: reduce energy demand*

- Minimal maintenance
- Clean/Quiet/Continuous operation
- Limitation: weight to power ratio

5



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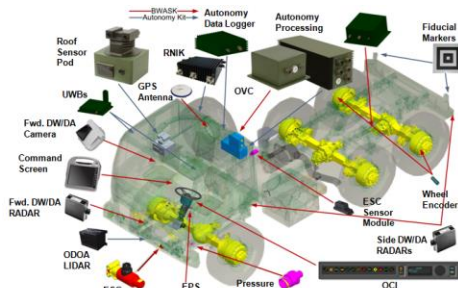
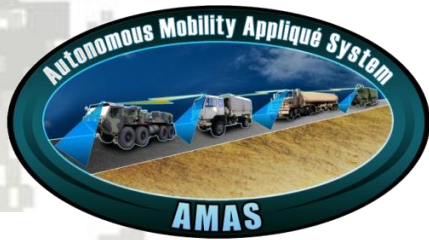


# Autonomous Mobility Appliqué System (AMAS) Joint Capability Technology Demonstration (JCTD)

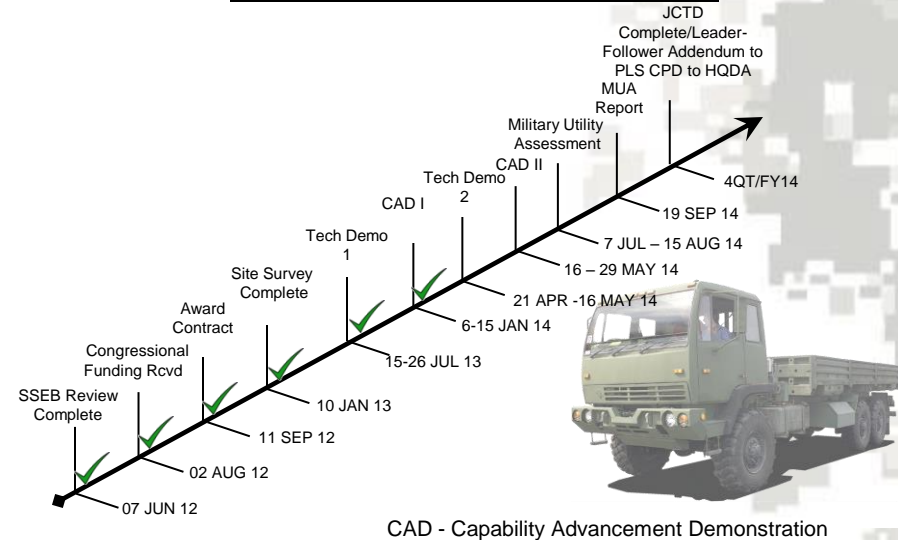


## AMAS JCTD Background and Requirements

- Congressionally approved 2-Year JCTD effort
- Develop appliqué for current Light, Medium and Heavy Wheeled vehicles
- Provide varied Levels or "Modes" of autonomy
- Provide ability to operate with or without occupant in cab
- Ability to operate in day/night, inclement weather, and limited visibility
- Increase safety, situational awareness, force protect, operational energy



## AMAS JCTD Basic Timeline



## JCTD Specifics

- **OSD** = Oversight Executive
- **CENTCOM** = Operational Manager for overall execution of JCTD
- **CASCOM** = Deputy Operational Manager in support of CENTCOM
- **TARDEC** = Technical Manager for developing the technology
- **Robotics System JPO** = Transition Manager for transitioning to POR
- **Goals:**

### Year 1: Integrate and Deploy Appliqué System

Operation: Convoy w/2 Each MTRV, LMTV, PLS, and M915 w/trailer.  
Capability: Driver Assist, Leader/Follower

### Year 2: Increase levels of Autonomy and Expand Platforms

Operation: Extend to MRAP, HMMWV, FMTV, and HET w/trailer  
Capability: Enhanced Driver Assist, Limited Tele-Operations  
Semi Autonomous Leader, Waypoint Navigation

**Technology:** Scalable Autonomy, Self Calibrating LRUs, Improved Standardized Metrics and Test Procedures,

**Complete Military Utility Assessment – JUL-AUG 2014**

## JCTD Transition

- Two-year effort completed with final report in Sep 14
- Fieldable Prototypes for the Army and USMC
- JCTD software capabilities could spiral into other developmental automated ground platform
- Staffing of leader-follower addendums to medium and heavy TWV CPDs beginning this summer (Jun 14)
- Automated Convoy Operations CDD = Establish POR (Pre-MS A MDD Q4 FY14)



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# AMAS Video





# What I Want to Leave You With



**Force 2025 and Beyond: A holistic modernization strategy to fundamentally change the Army**



**GRS: A Unified Sustainment Strategy to meet the CSAs Intent**

**Army 2020: The baseline for future refinements**

**Game-Changers: Reducing demand, automating tasks- producing at the point of need**

**The objective: a leaner and expeditionary Army with equal or greater capability**

