“TWV Modernization: Balancing Sustainment and Transformation”

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On the road from Tarin Kowt Forward Operating Base, returning to Kandahar, this 22-vehicle convoy of the 268th CSSB consisting of 7 MRAP gun trucks, 13 PLS trucks and two HEMTT wreckers was ambushed.

This was perhaps the largest complex attack on NATO Forces since 2003.

The ambush lasted 9 hours – until the sunset. Five of the gun trucks were disabled (four by IEDs and one by RPGs) and 10 of the PLS were hit by mortar rounds and one PLS was hit by an RPG.

Not one soldier was killed or seriously injured. The armoring of the vehicles and the Soldier convoy training were responsible for the positive outcome.

53rd QM Co. fuelers, Spc. Dana S. Osborne, Pfc. Jeffrey Wiedel and Pfc. Jose L. Garcia, were each awarded the Purple Heart Medal for injuries sustained during the ambush. [Photo by Spc. Elisebet Freeburg]
The Army’s TWV fleet objective is to procure and manage a modern TWV fleet with the quality and quantity required to ensure that Soldiers are equipped with the right vehicles and the right capabilities, at the right time.

“Nothing happens until something moves”
Agenda

- Capabilities Generation Process
- Capabilities Gap
- TWV Capabilities Challenges
- TWV Protection Evolution
- Current TWV Fleet
- Current and Near to Mid-Term Capabilities
- Training the Force
Capabilities Generation Process

Concepts

CNA
Doctrine Review
Literature Review
Threat Data

Drives

Capabilities Based Analysis

DOTMLPF

Key Performance Parameters
Key System Attributes
Additional Attributes
Informs Basis of Issue

JCIDS Capabilities Documents and DOTmLPF Change Recommendations

Defines Requirements

National Military Strategy
JOpsC
TWV Strategy
Lessons Learned
Etc...

CASCOM Capabilities Development and Integration:
- Identifies Materiel as well as other DOTmLPF Solutions
- Identifies requirements in coordination with all proponents
- Identifies changes over time to Materiel and DOTmLPF requirements

LIGHT
HMMWV, UAH, JLTV

MEDIUM
FMTV

HEAVY
HEMTT, M915
HETS & PLS

CNA – Capabilities Needs Analysis
JOpsC – Joint Operations Concepts
The U.S. Army requires affordable Families of Vehicles (FoV) which modernize our aging legacy TWV fleets. This effort focuses on integrated scalable personnel protection, and regaining vehicle agility and mobility to solve distinct capability gaps:

**Critical Gaps (Source: Approval of Medium and Heavy Tactical Wheeled Vehicle and Trailer Functional Solution Analysis (FSA), 18 Dec 09)**

- **Gap 1:** Lack sufficient availability of crew protection systems (active and passive) to protect the crews and enable un-interrupted distribution support.

- **Gap 6:** Lack sufficient loading, transloading and offloading capability necessary to provide efficient throughput of cargo and recovery of equipment in austere areas where cargo handling equipment/materials handling equipment is limited.
TWV Capabilities Challenges

Requirements vs. Lifecycle Cost

Capabilities Challenges:
• HQDA G3/G8/G4, AMC, PEO, COCOMs
  ➢ Reset vs. Recap vs. New procurement
  ➢ JCIDS document approval timelines
  ➢ Operational Need Statements / Joint Urgent Operational Need Statements
• TWV Fleet Organizational Requirements
• Technology Readiness Level
• Funding Uncertainty
TWV Protection Evolution

TWV seeks increased crew protection to counter enemy threats .......

GOAL: Increase Crew Protection and Vehicle Survivability with Lighter Armor .......
## Current TWV Fleet

### Light Tactical Vehicles
- **Battlespace Awareness**
  - General Purpose
  - LRS
- **Force Application**
  - Infantry Carrier
  - Heavy Guns Carrier
  - C2OTM
  - Close Combat Weapon Carrier
  - Recon
  - Utility
  - 2-Litter Ambulance
- **Focused Logistics**
  - Shelter Carrier
  - 4-Litter Ambulance
  - Primer Mover
  - Utility

### Medium Tactical Vehicles
- **2.5T**
  - Cargo
  - Cargo w/ winch
  - LMTV Shop Van
  - Shop Van w/ winch
- **5T**
  - Cargo
  - Cargo w/ winch
  - Standard Cargo w/ MHE
  - Long Wheelbase Cargo
  - Long Wheelbase Cargo w/ winch
- **8.5 - 10T**
  - Wrecker
  - Load Handling System
  - 10 Ton Dump
  - 10 Ton Dump w/ winch

### Heavy Tactical Vehicles
- **HEMTT**
  - Cargo (Light Crane)
  - Cargo (Medium Crane)
  - Electric Power Plant
  - Fuel Servicing, 2500 Gal
  - Tractor
  - LET
  - Wrecker
  - Guided Missile Transporter w/ winch
  - LHS
- **PLS**
  - Palletized Load System
  - HET
  - Heavy Equipment Transporter
  - Line Haul
  - Tractor

### Trailers
- **Medium**
  - 2.5-5T LOG/ENGR
  - 5.1-9T LOG/ENGR
- **Heavy**
  - LOG Support
  - Engineer
  - Aviation Recovery
- **Super Heavy**
  - LOG Support
  - Engineer
  - Recovery/Transport

**BLUE Denotes TWV FSA New Start Procurement**
Current and Near to Mid-Term Capabilities

Improve Army truck fleet capabilities

• Armoring and Crew Protection
  • Unarmored
  • A-Cab, B-Kit(LTAS/LTPS)/Fragmentation Kits
  • MRAP/JLTV

• Priorities
  1. Crew Protection (active and passive)
  2. Payload
  3. Performance/mobility
  4. Transportability

• Modernization
  • More powerful engines
  • Transmission upgrades
  • Suspension and brake enhancements
  • Safety improvements
  • Increased commonality between different truck types

Requirements

Performance
Mobility
Transportability
Payload
Protection

Lifecycle Cost

Balanced by 2025
What are we doing to train our drivers for today and tomorrow’s complex environment?

- Doctrine, lessons learned, latest TTPs from OEF/OIF
- Live, interactive individual and collective simulations like:
  - Reconfigurable Vehicle Tactical Trainer (RVTT)
  - HMMWV Egress Assistance Trainer (HEAT)
- Leverage immersive & virtual capabilities such as:
  - Counter IED Trainer
  - Common Driver Trainer
  - Warrior Skills Trainer

Incorporating the latest in simulations and virtual technologies
The Army’s TWV fleet objective is to procure and manage a modern TWV fleet with the quality and quantity required to ensure that Soldiers are equipped with the right vehicles and the right capabilities, at the right time.
Questions?