The Objective Force for Tactical Wheeled Vehicle Conference

LTG John M. Riggs
Director, Objective Force Task Force
January 27, 2003
The Requirement to Transform

Security Challenges of the 21st Century
Pace and Proliferation of Technology
Compelling Need to Respond More Rapidly & Decisively
Across the Full Spectrum of Military Operations

The Army Has a Non-negotiable Contract with the American People to Fight & Win our Nation’s Wars
Objective Force Transformation Ongoing Now!
DoD Operational Goals & Transformation Pillars

Transformation

- Strengthen Joint Operations
- Experimenting with New Approaches to Warfare
- Exploiting US Intelligence Advantages
- Developing Transformational Capabilities

Protect the US Homeland and our Bases Overseas
- Project and Sustain Power in Distant Theaters
- Deny our Enemies Sanctuary
- Protect our Space Capabilities from Enemy Attacks
- Use Information Technology to Link US Forces
- Protect our Information Networks from Attack

Army Capabilities are nested in DoD Transformation Guidance & Emerging Joint Operational Concepts

DoD Operational Goals
We now have the conceptual foundation for the Objective Force to guide all facets of Army Transformation.
Objective Force Concept

The Objective Force

Joint, Interagency & Multi-National Capabilities
Campaign Quality Force
Full Spectrum Operations
Network Centric
Enabled by Knowledge
Adaptive Modular Organizations
Family of Systems/System of Systems
3-7 Days Self-Sustainment
Deployability – 1 Brigade sized element in 96 Hours/ 1 Division sized element in 5 Days/ 5 Divisions sized element in 30 Days

Objective Force “Space to Mud”

Objective Force “Factory to Foxhole”
How the Objective Force Fights
The Objective Force as Part of the Joint Operational Concept

- Joint C4ISR
- Dominant Maneuver
- Precision Engagement
- Focused Logistics
- Full Dimension Protection

Full Spectrum Dominance
Objective Force Contributions to Focused Logistics

Continuous uninterrupted provision of combat service support across the full spectrum of military operations.

Characterized by...

- Network-centric logistics
  - In-transit visibility
  - CROP
- Two level maintenance
- Increased use of robotics
- Reduced demand
- Reduced sustainment footprint
- New ground and aerial concepts for delivery
- Multi-modal, multi-nodal distribution
- Reach operations
- Joint medical treatment and evacuation to standard across echelons

Provides...

- Fewer vehicles and personnel required
- Self-sustainment – 3-7 days
Objective Force Organizations

Emerging Concepts

**Unit of Action (UA)**

- HQs
- Bde Intel & Comms Co
- Combined Arms (3)
- Support
- Non-Line-Of-Sight
- Aviation

**Unit of Employment (UE)**

- Joint Headquarters Capable
- Standing Base
- HQs
- C2
- ISR
- Sustain

**Pooled UAs**

- Man
- Aviation
- Fires
- Man Support
- Air & Msle Def.
- Special Ops Forces
- Eng

**Modular Adaptable Organizations**

- Designed and trained for Joint, interagency and multi-national interoperability
- Inherently modular – rapid force tailoring and teaming as required based on mission needs
- Organizations designed and equipped to fulfill command and control (C2) functions of Joint, interagency, and multi-national organizations
  - Army Forces Command, Joint Forces Land Component Command, and Joint Task Force
  - Joint Interagency Coordination Group (JIACG)
- Improved level of competency in leaders and Soldiers which empowers leadership to make decisions at lowest levels
- Human resource functions support Joint, interagency and multi-national operations for Soldiers, civilians, families and contractors
  - Increased liaison assignments to interagency and multi-national organizations
  - Seamless Army active and reserve component force structure
Future Combat Systems (FCS) Family of Systems

Essential Tenets of the FTTS Program

- Create opportunity for *best of industry* to participate
- Leverage government *technology* base to maximum extent
- Associate on-going enabling efforts with LSI led activity
- Collaborative environment from design through life cycle
- As a minimum, *commonality* at subsystem/component level
- Design/plan for *technology integration* and insertion
- Maintain and shape *industrial base* for the future
- Retain *competition* throughout objective force acquisition
- Appropriate *government involvement* in procurement processes
- Maintain and shape *government acquisition* community
- Program *affordability--balance* performance and sustainment

Complexity ...
+ 500 discrete requirements
= ~ 300 individual programs
Future Combat Systems (FCS)

- Manned Systems
  - The Soldier (2499)
  - Mounted Combat System (54)
  - Reconnaissance & Surveillance (27)
  - NLOS Cannon (18)
  - NLOS Mortar (24)
  - Maintenance & Recovery (10)
  - Medical Treatment & Evacuation (29)

- Unmanned Systems
  - Unmanned Air Platforms (Systems)
    - UAV I (36)
    - UAV II (36)
    - UAV III (12)
    - UAV IV A/B (16)
  - Unmanned Ground Vehicles
    - Armed Robotic Vehicle (63)
    - Mule (59)
    - Small Man-packable UGV (45)
  - Unmanned Payloads
  - Unattended Ground Sensors
  - Unattended Munitions
    - NLOS LS
    - Intelligent Munitions

Total UA WT: <10K STONS

(IAW UA O&O, Chg 1, 25 Nov 02)
FTTS Threshold Capabilities

Responsiveness
- Greater Fuel Efficiency 100 - 200%
- Dynamic Movement Tracking and Re-routing
- Greater Range 600 – 900 miles
- Integrated C4ISR

Agility
- Higher Mobility Rated Speed: 50% increase
- Must be able to go where FCS goes and bypass built up areas to deliver support

Versatility
- Advanced Load Handling
- Interchangeable/Intermodal Operation
- On Board Power & water Generation
- Deliver integrated, common, formed Packaging

Sustainability
- Reliability – MTBF > duration of Pulsed Operations
- Maintainability – Self-reporting, no special tools, No TMDE, and No Spares

Deployability
- C130 Roll on/Roll off w/load
- Ready to support off the ramp Without vehicle preparation or Transportability waivers

Survivability
- Designed upfront to provide time definite and assured delivery
- Reduced Emissions and Signature

ORD Starting Point
FTTS ACTD Objective

Med & Heavy Truck Variants

Numerous Delivery Platforms

Load Handling System

Numerous Material Handling Equipment

FTTS-MSV

Modular Platform

FTTS-UV provides Command and Control and includes a Hybrid propulsion system for increased fuel efficiency and onboard power

Numerous Interface Devices

A SEAMLESS Distribution SYSTEM built for the Obj Force (Applied to the SBCT to evolve the TTPs, CONOPS, and doctrine)
FTTS Transition Schedule

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<th>Phase</th>
<th>FY02</th>
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**FTTS-MSV**

- **ACTD** Reduces Acquisition Risk for the PM

**FTTS-UV**

- **ACTD** Reduces Acquisition Risk for the PM

**FTTS Procurement Funds Begin in FY08**

**FTTS-MSV**

- **FUE** FY10 is 2 years behind FCS FUE FY08
- **FUE** FY13 is 5 years behind FCS FUE FY08

**FCS Schedule**

- **CTD Award**
- **MS B Approval**
- **MNS/MS A Approval**
- **ORD**
- **ACTD**
- **MS B Approval**
- **SDD**
- **LRIP**
- **FUE**
- **IOC**

**FTTS-MSV FUE FY10** is 2 years behind FCS FUE FY08

**FTTS-UV FUE FY13** is 5 years behind FCS FUE FY08

**STATUS:**

- **Mar 03 – MAA/MNA**
- **Jun 03 – ACTD Approval**
- **May 03 – O&O**
- **Sep 03 – ICD**
- **Apr 05 – CDD**
- **Aug 07 – CPD**
- **Aug 10 – FUE (MSV)**

**FULL SCALE PRODUCTION**
**What We Need From “FTTS”**

- Systems designed for tough requirements.
  - Self reporting
  - No vehicles that get less than 30 mpg
  - Limited repairables
  - Limited spares
  - No Systems w/o embedded diagnostics/prognostics

- Future systems must be built with ultra reliable components that require minimal preventive maintenance, and when maintenance is required repairs and services are easily and quickly performed.
  - No special tools
  - No external TMDE
  - Mean Time Between Failure (MTBF) > Duration of pulsed operations

- We may have to pay up front for such “Ultra-reliable” systems, but our future warfighting concepts depend on them. If systems don’t perform as advertised, there should be penalties.

**“Significant reduction in the logistics footprint and costs will occur when reliability, maintainability, and fuel efficiency are effectively balanced with Cost, Schedule and Performance”**
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<th>Year</th>
<th>Objective Force</th>
<th>Current Force (HET, PLS, HEMTT, M915, FMTV, HMMWV)</th>
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**FY 03 OBJECTIVE**

- Transitions from FY03 to Objective Force
- Current Force includes HET, PLS, HEMTT, M915, FMTV, HMMWV
- Interim Force includes HEMTT-LHS, FMTV, HMMWV
- HEMTT ESP contract ends FY07
- FMTV contract ends FY08
- HMMWV contract ends FY07

**FTTS** — Critical Enabler of the Objective Force
Fielding an Army – Over Time

Balancing the Right Mix of Current and Stryker Forces with Fielding the Objective Force
Our Nation’s Future

The Objective Force is the Transformation of the entire United States Army … the dedicated efforts of the entire Army Team…our sister Services, industry, academia, DoD, and Congress are ensuring Transformation succeeds!

A 21st Century Army for a 21st Century World