The Army – Transforming while at War

LTG Stephen Speakes

4 February 2008
Agenda

• Strategic Construct
• Resourcing an Army at War
• Army Modernization Strategy
• Tactical Wheeled Vehicle Strategy
• The Way Ahead
Persistent Conflict

Protracted confrontation among state, non-state, and individual actors who use violence to achieve political and ideological ends

Trends fueling conflict

- Globalization
- Population growth
- Resource demand
- Climate change and natural disasters
- Proliferation of WMD
- Failed or failing states

Required Capabilities

- Enhanced Soldier Protection
- Modular, Scalable, and Tailorable Battle Command and Control – Network down to the lowest level
- Strategic Force Projection – Intra-theater Operational Maneuver and Sustainment
- Modular, Tailorable Forces – Adaptable to Present and Future Threats
- Capability for Lethal and Non-Lethal Overmatch

Requires Joint Full Spectrum Capable Land Force
Restoring Balance

Current

2007/08

Current Demands

Current

Restore Readiness + Strategic Flexibility

Sustain Volunteer Force

Imperatives

• Sustain
• Prepare
• Reset
• Transform

Future

2011

Future Demands

Future

Restore Readiness + Strategic Flexibility

Sustain Volunteer Force

Initiatives

• Accelerate Growth
• Soldiers and Families
• Modernization
• Transition RC
• Leader Development
• Institutions
• Stratcomms
“America’s ground forces have borne the brunt of underfunding in the past and the bulk of the costs – both human and materiel – of the wars of the present. By one count, investment in Army equipment and other essentials was underfunded by more than $50 billion before we invaded Iraq. By another estimate, the Army’s share of total Defense investments between 1990 and 2005 was about 15 percent. So resources are needed not only to recoup from the losses of war, but to make up for the shortfalls of the past and to invest in the capabilities of the future.”

Secretary of Defense Dr. Robert M. Gates (10 Oct 07)
Moving Towards Fiscal Balance

- Unable to predict future (beyond 2008) supplemental projections
- Continue to leverage supplemental to achieve balance
1. Accelerate growth and readiness ... And sustain a campaign quality, expeditionary Army
2. Enhance quality of support to Soldiers and families to preserve strength of the All-volunteer Force
3. Maintain continuity and momentum in modernization to improve capability of current and future force
4. Complete transition of the Reserve Component to an operational reserve
5. Accelerate change in leader development programs to grow leaders for 21st century
6. Adapt institutional policies, programs and procedures to support our expeditionary Army at war
7. Build strategic communication capabilities to effectively communicate with internal and external audiences
• Rapidly field the best new equipment to the current force.

• Upgrade and modernize existing systems to ensure all Soldiers have the equipment they need, including:
  o Soldier as a System
  o Armored Systems
  o Tactical Wheeled Vehicles
  o Aviation
  o Patriot
  o The Network

• Incorporate new technologies derived from Future Combat Systems research and development.

• Field the Future Combat Systems (FCS) Brigade Combat Teams.
Modernization Timeline

2011
- Army in Balance

2015
- FCS Initial Operational Capability
- 1st FBCT IOC
- 1st FBCT FOC in 2017
- 2 Abrams and Bradley variants 2013
- BCTs to MTOE by 2015
- Pure fleet Patriot
- Joint Cargo Aircraft first unit equipped in 2010
- Armed Recon Helo first unit equipped in 2011

2020
- Fielding of FCS & Spin Outs
- 5 FBCTs fielded by 2020
- 52 Modular BCTs with Spin Outs by 2020
- Kiowa Warrior retired in 2019

2025
- Fielding of Network and Spin Outs
- 15 FBCTs Fielded by 2030
- Full FCS Battle Command (network) by 2025
- Complete fielding Spin Outs to 61 Modular BCTs by 2025

2030
- Full Fielding of FCS

2016: Require Decision to field Spin Outs to Support BDEs (POM 18-23)
2022: Require Decision to continue to field FCS BCTs beyond initial 15 (POM 24-29)
Army Transformation

- Transformation is a holistic effort to adapt how we fight, train, modernize, develop leaders, station and support our Soldiers, Families and Civilians, to sustain full spectrum dominance in an era of persistent conflict.
- Modernization provides the materiel solutions.
- Future Combat Systems (FCS) is the core of Army Modernization.
- The Soldier is the Centerpiece.
Vision for Future Networked Land Forces in Joint Operations

Redundant, Scalable, and Tailorable On-the-Move networks enable Situational Understanding to Focus Effects with Precision
“provide our Soldiers with a decisive advantage through improved situational awareness”
## Current vs Future Combat Teams

<table>
<thead>
<tr>
<th>Capability Improvements</th>
<th>Heavy Modular BCT</th>
<th>FCS BCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Sustaining (Hi OPTEMPO)</td>
<td>24 hours</td>
<td>72 Hours</td>
</tr>
<tr>
<td>Wartime Vehicle Availability</td>
<td>&lt; 90%</td>
<td>&gt; 95%</td>
</tr>
<tr>
<td>Infantrymen in Squads</td>
<td>324 (8% of HBCT)</td>
<td>702 (22% of FCS BCT)</td>
</tr>
<tr>
<td>Support Soldiers</td>
<td>1,186 (31% of HBCT)</td>
<td>411 (13% of FCS BCT)</td>
</tr>
<tr>
<td>Average maintenance man hours per operating hour</td>
<td>1 to 2</td>
<td>1 to 20</td>
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### Revolutionary Improvements

| Maintenance tasks performed by crew chief           | 10%               | 80%             |
| Platform Health Status                              | Only vehicle crew understands | Visible to entire Brigade through networked logistics |
| Power                                               | Motors and generators (Power Consumer) | Hybrid Electric (Power Generator) |
| Training                                            | Stand alone Simulators (in select locations) | Embedded Training (Anywhere) |
TWV Fleet Capabilities

Pre-2003

- Operational Mission Sets
  - Major Combat Operations

Today

- Operational Mission Sets
  - Counter Insurgency
  - Loose WMD
  - Joint Forced Entry Operations

Future

- Capable of Full Spectrum Operations
  - Mixed fleet approach that spans the “Iron Triangle”
  - Scalable protection

- Mixed fleet approach that spans the “Iron Triangle”
- Scalable protection
• The Army has a flexible base strategy

• In light of the increasing complexity of the current environment and the multitude of missions the Army must perform, the strategy will:
  - Take maximum advantage of existing platforms
  - Integrate MRAP into the fleet mix
  - Emphasize a mixed fleet approach that spans the “Iron Triangle” of Protection, Performance, and Payload
  - Move the Army to a fleet of TWVs that have scalable protection (integrated A-kit cabs and add-on armor B-kits)
1. Comprehensive Soldier Protection
   • All TWV will have scalable protection so commanders can balance risk against mission requirements
   • The Army will continue to develop “left of the bang” solutions that span all DOTML-PF domains

2. Fielding as a system
   - Deliver vehicles with enablers (example: radios, crew served weapons, jammers and situational awareness)

3. Balance fiscal and technological risk
   - Achieve right technology to provide right capability at the right capacity

4. Streamline number of variants
   - Reduce logistical footprint
• The Army will continue to have a requirement for light tactical vehicles
  • Rotary wing transportable
  • Highly mobile
  • Capable of Full Spectrum Operations
• One vehicle will not meet all requirements
• We will continue to face asymmetric threats: MRAP will have a role in future conflicts
• The HMMWV will have a useful role in the Army inventory for the foreseeable future
Way Ahead

• Work with Congress to increase programming flexibility
• Work with OSD and Congress to properly resource both the present and future capabilities
• Work with Sister Services to identify joint solutions
• Work with industry to find and deliver solutions faster
Questions?
BACKUP SLIDES
Foundation of the Army

OPTEMPO – Quality of Life – All Volunteer Force

Grow the Army 65K : End Strength 547K AC + 358.2K ARNG + 206K USAR

Current Army End Strength : 482.4K AC + 350K ARNG + 205K USAR

- TT’s
- JMD
- WIAS
- DMOSQ
- Non-Deployables

- OES/NCOES Backlog
- Time to train
- Personnel Fill

- Holes in Yard
- Modular Force
- Battle Loss
- Battle Damage
- RESET
- TPE
- Modernization

- RESET
- RC=Depth
- APS
- Implement Concept of Spt

- Infrastructure/ SRM Backlog
- Services at Amber

Man
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Equip
Sustain
Installation

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TRADOC
AMC
IMCOM
MEDCOM
INSCOM
NETCOM

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Supp-to-Base: The Army has grown reliant on supplemental funding to support enduring programs. Given the risk of future supplemental funding, the Army must develop a plan to migrate funding of enduring peacetime program and missions from supplemental funding to base funding.

- $18.1B/yr of supplemental funding covers enduring peacetime requirements
- Political climate indicates future supplemental funding is at risk
- Impacts Army’s ability to meet critical Title X responsibilities
  - Man, Train, Equip, etc.
Here’s Where We are Going

Spin Outs to All BCTs

Current Force

Grow the Army

Future Force

+ FCS BCT

Modernization

Lessons Learned

Current and Future Force Enabled

Army Evaluation Task Force

Lessons Learned

Current Force

Future Force

Modernization

Army Evaluation

Task Force

Current and Future Force Enabled
More Battle Command
- Joint Software Programmable Radio With Multiple Waveforms To Share More Information
- Connection To Unattended Sensors
- Connection To Joint Network
- FCS Network Kits (Abrams, Bradley And HMMWV) Brigade, Battalion, And Company Command Vehicles

Unattended Ground Sensors – Tactical / Urban
- Provides Small Units Remote, Rapid Alert About People Or Vehicles 24-7
- Detects People And Heavy Track/Wheel Vehicles
- Monitor Greater Area With Fewer People; Early Warning at Platoon Level
- Increase Force Protection
- Persistent Surveillance Using Air Platform / Sensors (Less “Dead Space”)

Unmanned Air Vehicle – Class I
- Protects / Enables Soldiers On High Risk Missions In Complex Terrain
- Remote Recon and Detection of Booby-traps, Landmines And Explosive Threats
- Persistent Surveillance Using Layered Sensors (Less “Dead Space”)
- Provide Soldier Stand-off For Surveillance, Reconnaissance, And Lethal Engagements
- Communications Relay Extends Ranges To Facilitate Combat Operations Over More Complex Terrain

Non-Line Of Site Launch System (NLOS-LS) With Precision Attack Munitions
- Precise Fires On Moving And Stationary Targets Out To 40kms
- Greatly Reduced Manning For Firing Elements
- Forced Entry And SOF Fires Without Cannons (Can Air Drop)
**Spin Out 2 Capabilities**

**Stryker Integration kit**

**Active Protection System**
- 360 Degree Hemispherical “Bubble” Protection
  - Unitary Or Tandem RPG Attacks
  - Missiles (Anti-tank Guided; Objective: Kinetic Energy, Chemical Energy)
  - Mortars Rounds
  - Large Caliber Cannon Rounds
  - Tank Rounds (High Explosive, High Explosive Anti-tank: Objective: Kinetic Energy)
- Top Attack / Precision Munitions
- Increases Mounted Soldier Protection

**Mast Mounted Sensor**
- Extendable Mast System Allows Vehicle To Remain “Behind” The Hill
- Range Far Beyond 3,000 meters (classified)
- Images From Thermal Camera And Day Camera
- Image Intensification Sight (Clearer Picture At Night)
- Laser Designator For Targeting
- Increases Mounted Soldier Protection
- Increase Lethality

**More Battle Command**
- APS Sensor Shooter Link
Full Battle Command
- Battle Command On The Move Inside Joint Network
- Network Management, Data Fusion, And Decision Aides For Leaders And Soldiers
- Combat Identification To Prevent Fratricide
- Target Identification And Discrimination To Reduce Collateral Damage
- Detect, Track, Engage Fleeting Targets; Links More Sensors And Shooters
- Greater Survivability, Lethality, And Maneuver Ability
- Cooperative Engagements Among Platforms (Manned and Unmanned)

Unmanned Systems
- Protects / Enables Soldiers On High Risk Missions In Complex Terrain
  - Sensing, Breaching, Clearing Buildings And Tunnels
  - Remote Recon And Detection And Neutralization Of Booby-traps, Landmines And Explosive Threats
  - Remote Mine And CBRN Detection
- Persistent Surveillance Using Layered Sensors (Less “Dead Space”)
- Detect, Track, Designate, And Engage Fleeting Targets
- Provide Soldier Stand-off For Countermine, Surveillance, Reconnaissance, And Lethal Engagements
- Communications Relay Extends Ranges To Facilitate Combat Operations Over More Complex Terrain
- Transports Part Of Soldiers’ Loads
Balancing Tomorrow’s Fleet

Legend

- Mixed fleet approach that spans the “Iron Triangle”
- Scalable protection

Note: Dotted lines are not scaled to actual future capabilities