

# AMERICA'S ARMY: THE STRENGTH OF THE NATION™



UNITED STATES ARMY



## The Army – Transforming while at War

LTG Stephen Speakes

4 February 2008



SOLDIERS \* FAMILIES \* ARMY CIVILIANS

**ARMY STRONG.**™

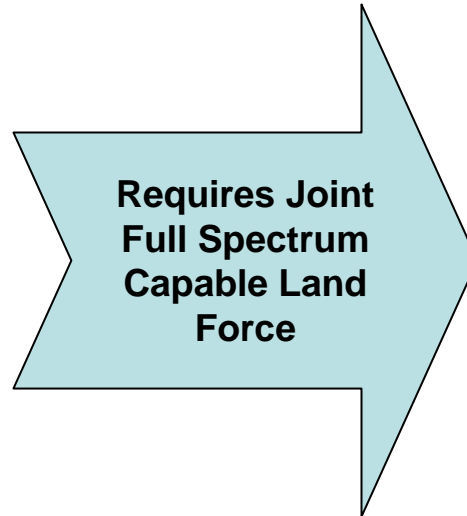
- **Strategic Construct**
- **Resourcing an Army at War**
- **Army Modernization Strategy**
- **Tactical Wheeled Vehicle Strategy**
- **The Way Ahead**



***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**

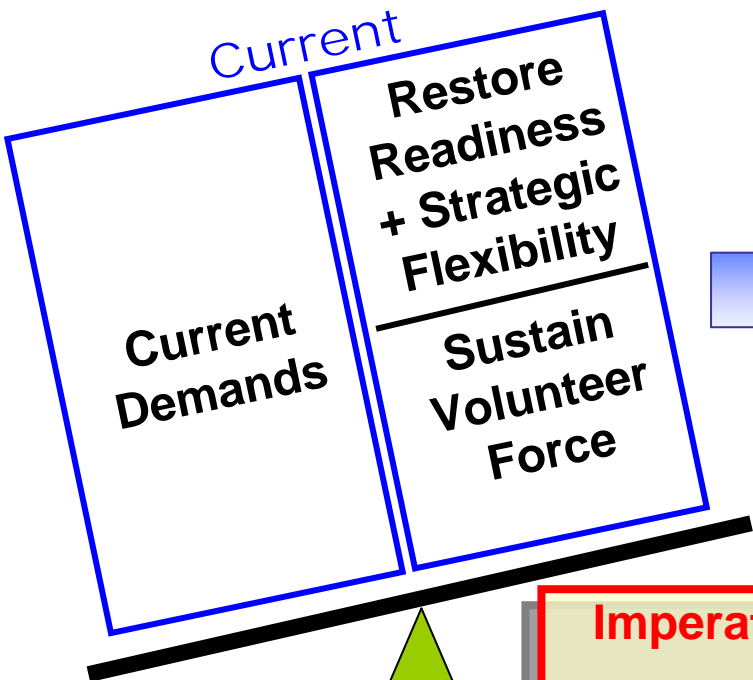
- Enhanced Soldier Protection
- Modular, Scalable, and Tailorable Battle Command and Control – Network down to the lowest level
- Strategic Force Projection – Intra-theater Operational Maneuver and Sustainment
- Modular, Tailorable Forces – Adaptable to Present and Future Threats
- Capability for Lethal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



# Restoring Balance

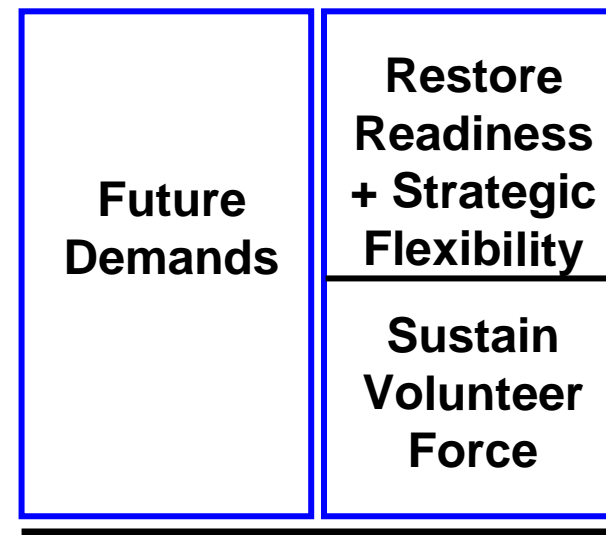
2007/08

Current



2011

Future



## Imperatives

- Sustain
- Prepare
- Reset
- Transform

## Initiatives

- Accelerate Growth
- Soldiers and Families
- Modernization
- Transition RC
- Leader Development
- Institutions
- Stratcomms

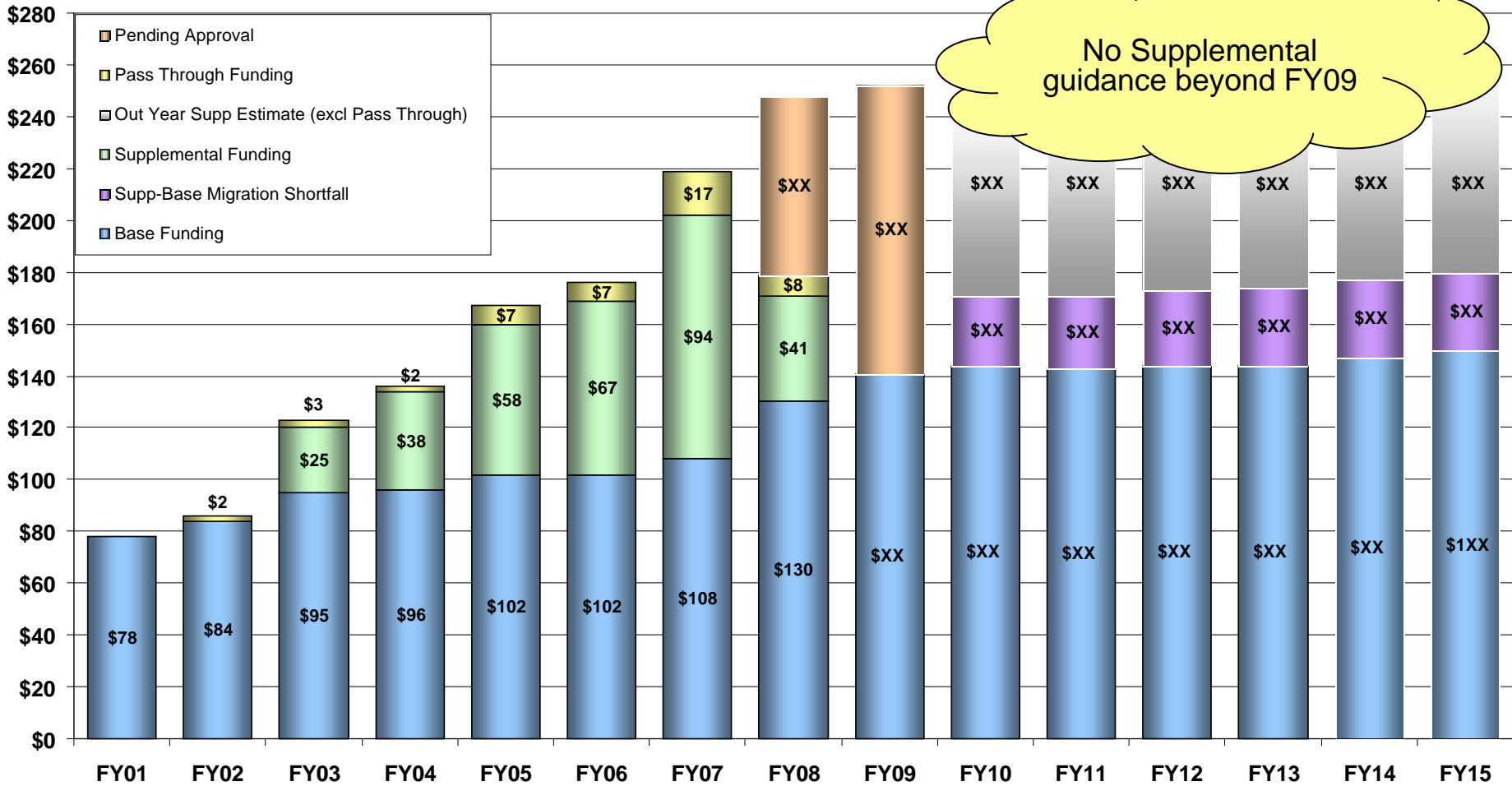


- Moving Towards Fiscal Balance
- Army Imperatives

“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



No Supplemental guidance beyond FY09

- 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



# The Four Elements of the Army Modernization Strategy

- 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:
  - Soldier as a System
  - Armored Systems
  - Tactical Wheeled Vehicles
  - Aviation
  - Patriot
  - The Network
- Incorporate new technologies derived from Future Combat Systems research and development.
- Field the Future Combat Systems (FCS) Brigade Combat Teams.



Class I UAV



Small UGV  
(SUGV)



Armed Robotic  
Vehicle – Assault  
(Light) (ARV-A-L)



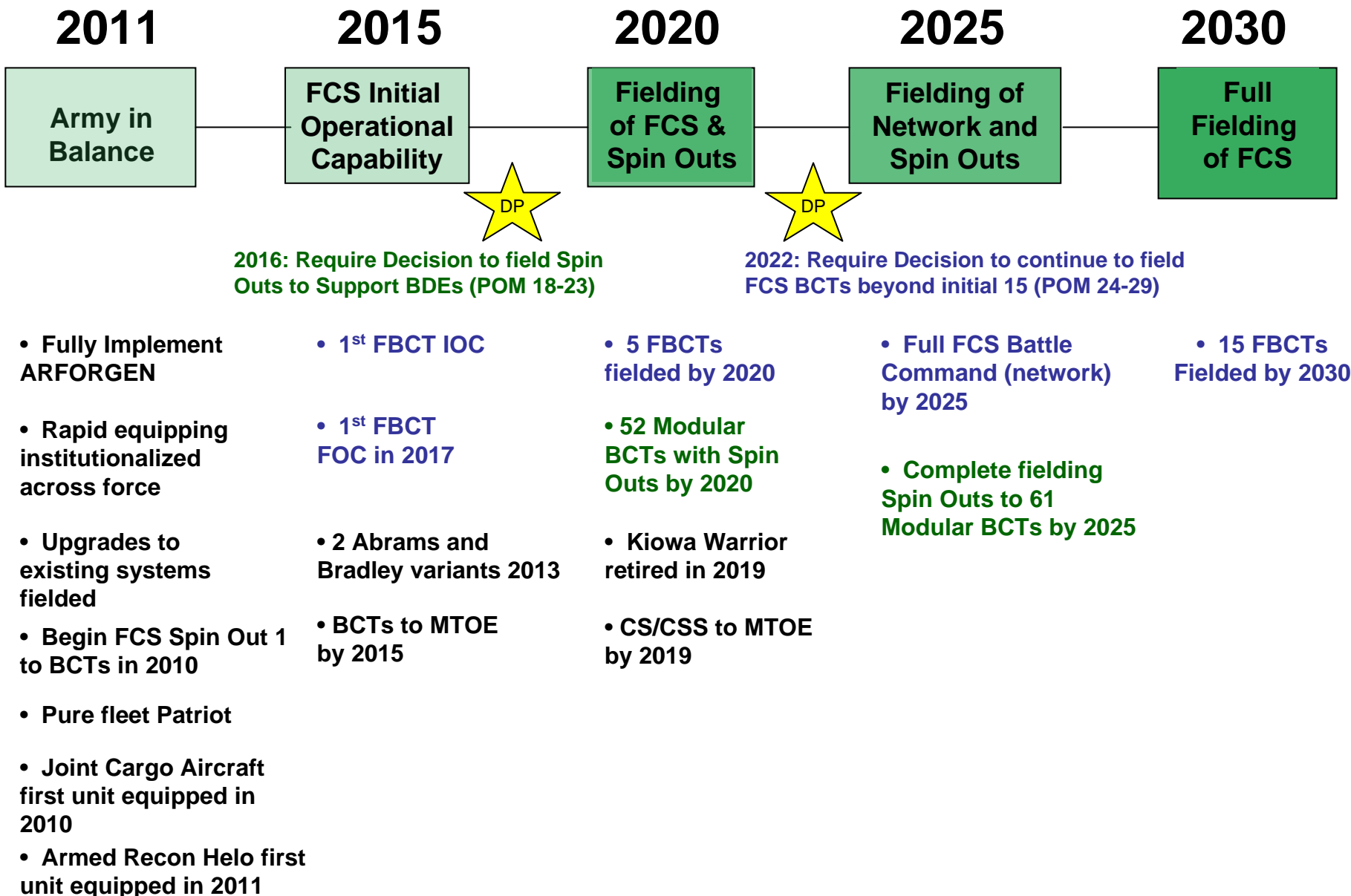
Mounted Combat  
System (MSC)



Infantry Carrier  
Vehicle (ICV)

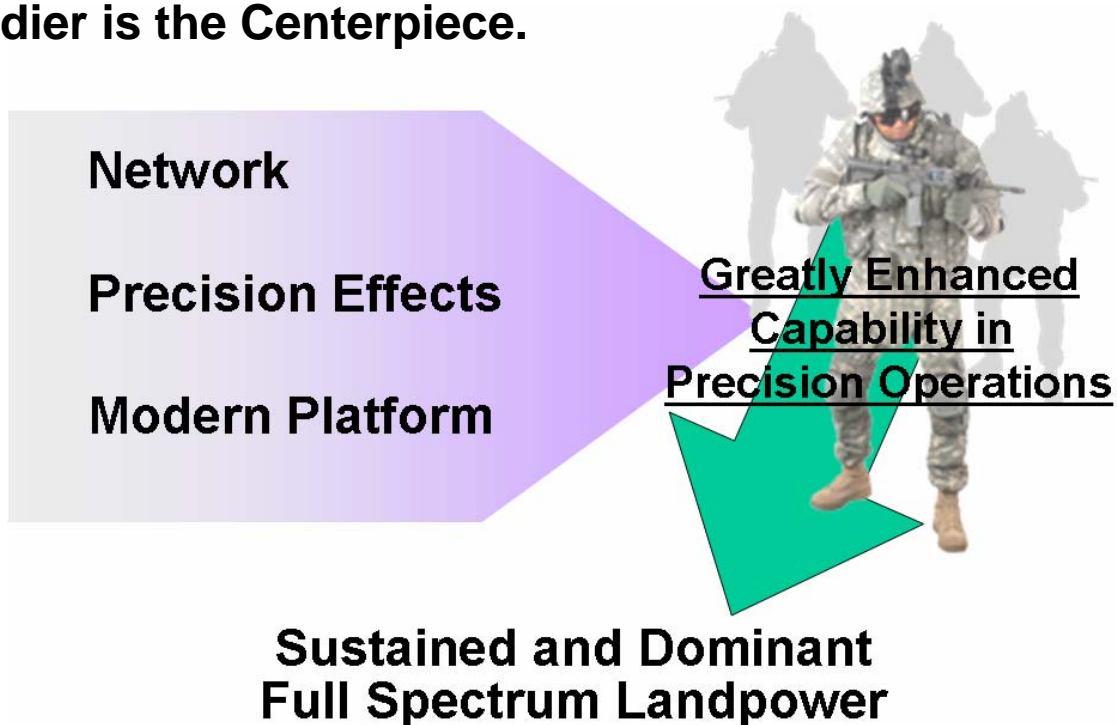


# Modernization Timeline

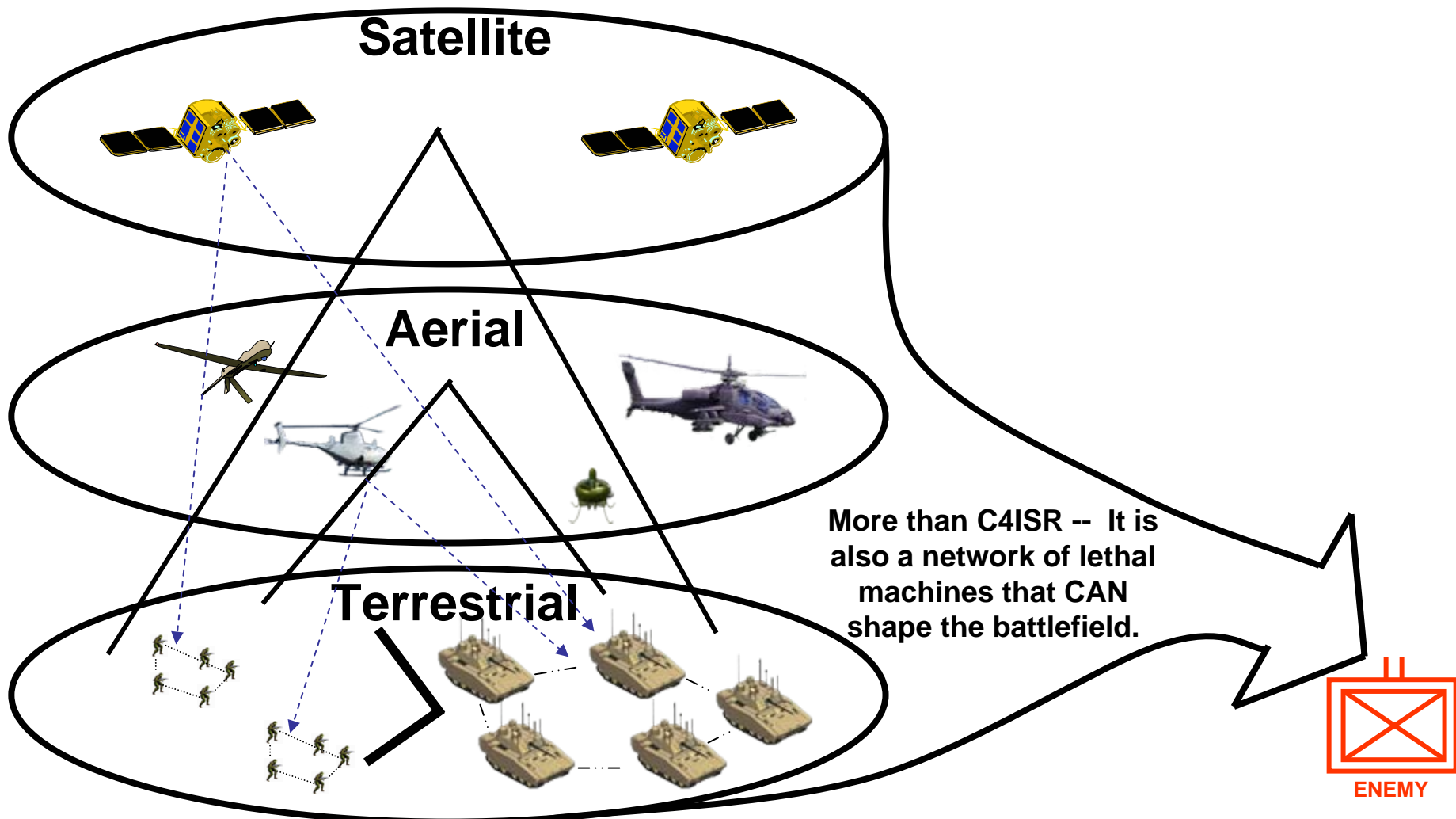


# Army Transformation

- 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.

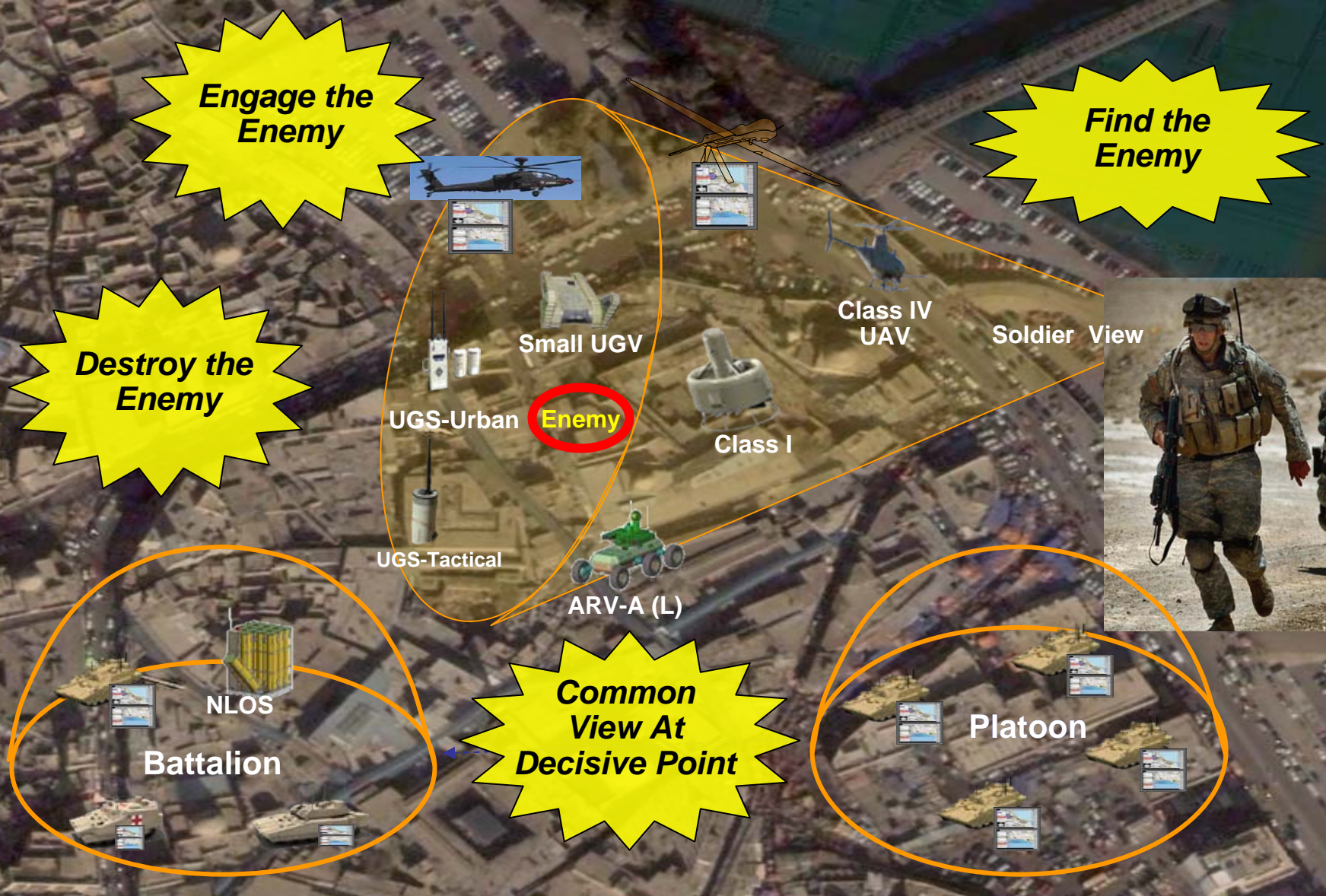


# Vision for Future Networked Land Forces in Joint Operations





***Redundant, Scalable, and Tailorable On-the-Move networks enable Situational Understanding to Focus Effects with Precision***



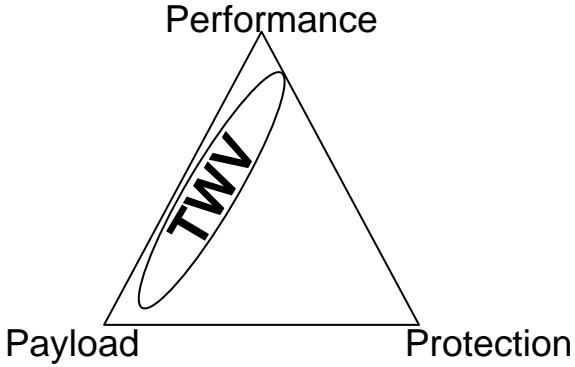


**“provide our Soldiers with a decisive advantage through improved situational awareness”**

# Current vs Future Combat Teams

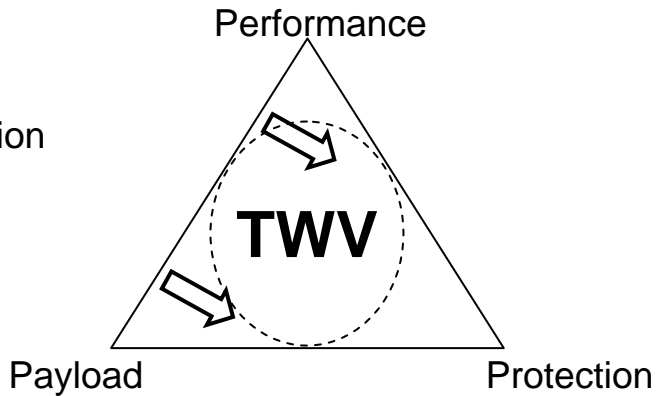
	Heavy Modular BCT	FCS BCT
Capability Improvements		
Self Sustaining (Hi OPTEMPO)	24 hours	72 Hours
Wartime Vehicle Availability	< 90%	> 95%
Infantrymen in Squads	324 (8% of HBCT)	702 (22% of FCS BCT)
Support Soldiers	1,186 (31% of HBCT)	411 (13% of FCS BCT)
Average maintenance man hours per operating hour	1 to 2	1 to 20
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)

## Pre-2003



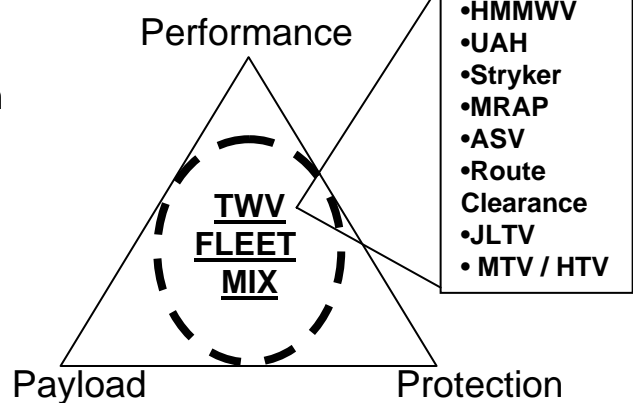
Operational Mission Sets  
•Major Combat Operations

## 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





- 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



- 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      Train      Equip      Sustain      Installation

FORSKOM

TRADOC

AMC

IMCOM

MEDCOM

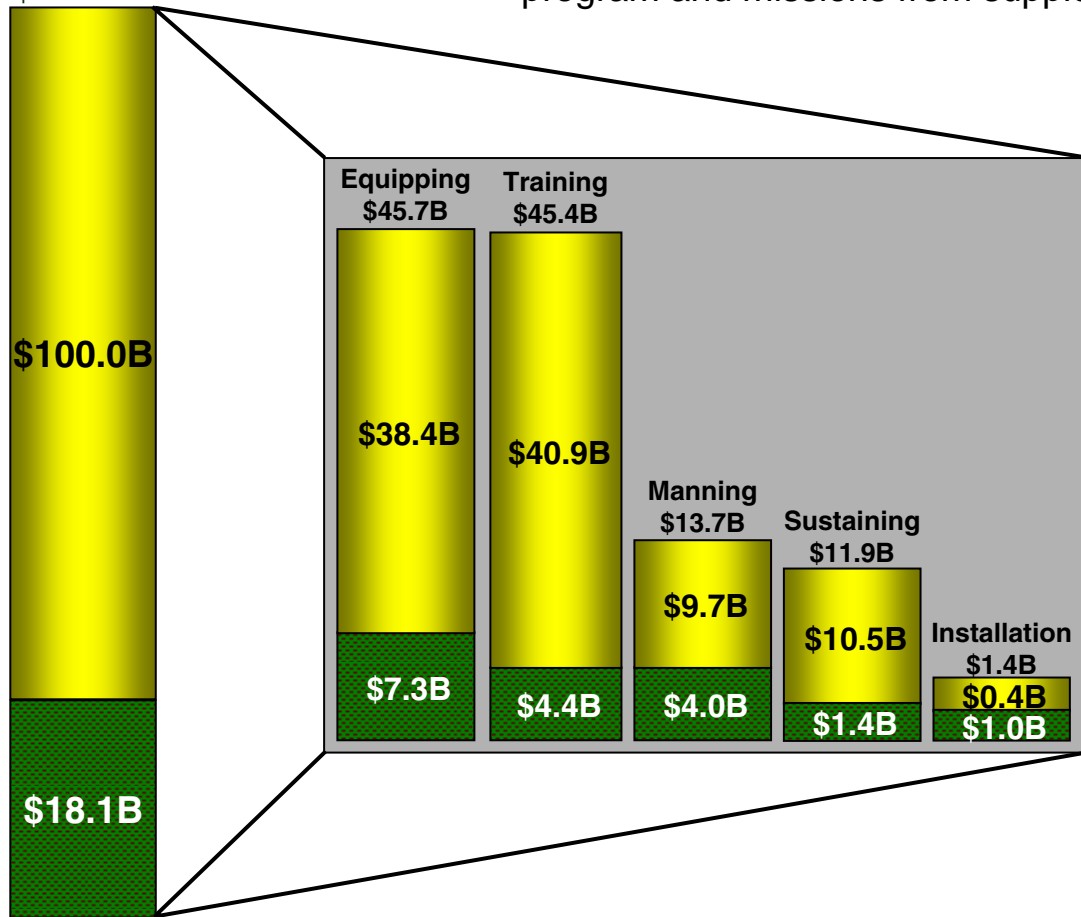
INSCOM

NETCOM

# Supp-to-Base Migration

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.

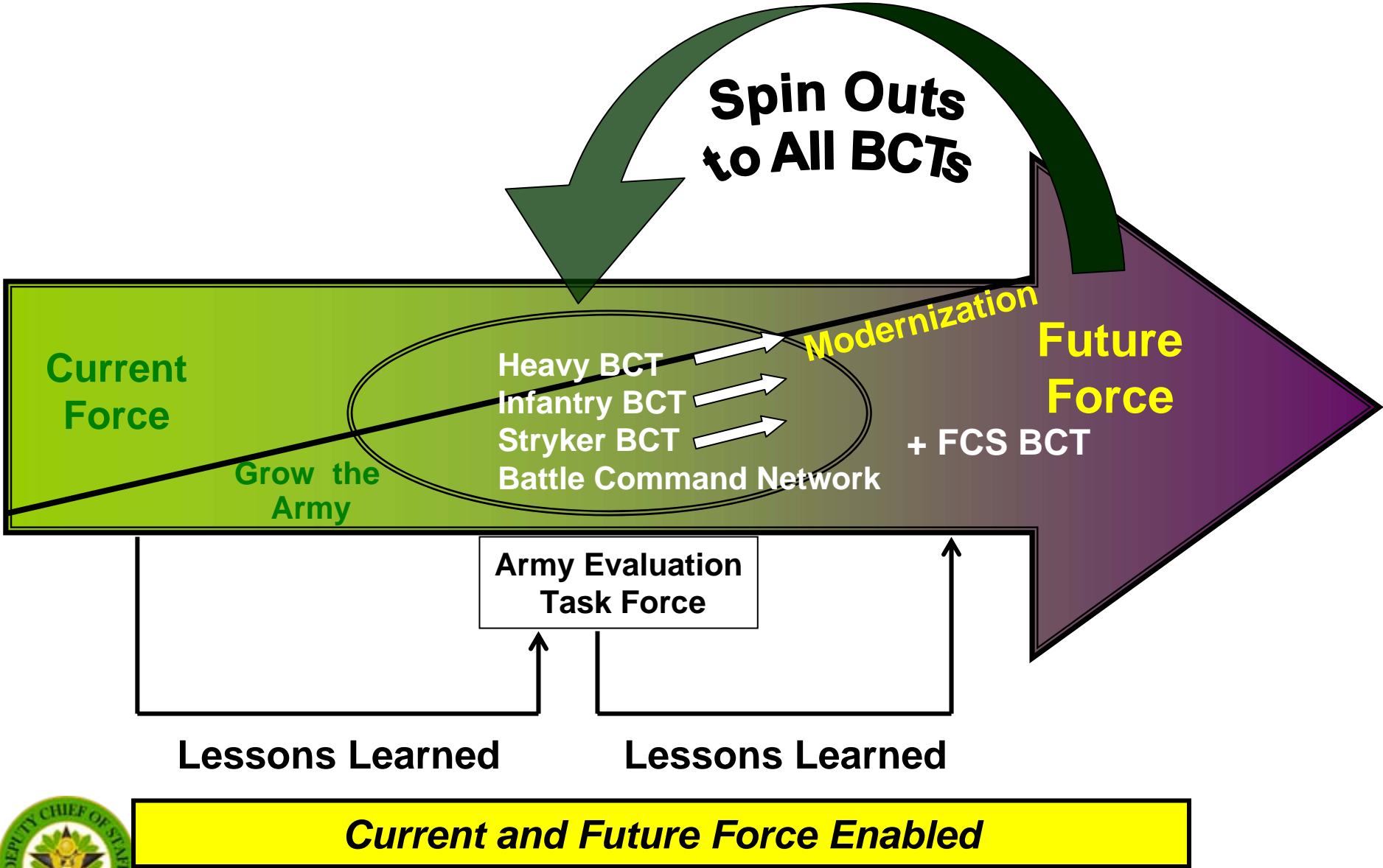
**Total Supp  
(FY08)  
\$118.1B**



Supplemental  
Supp-to-Base

- ⊕ \$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 Out 1 Capabilities

## Abrams, Bradley, HMMWV Integration kits



### More Battle Command



**JTRS  
Ground  
Mobility  
Radio**



**Integrated  
Computer  
System**

### 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



**UGS-Tactical**

**UGS-Urban**

### 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)



**Class I UAV**



**NLOS-LS  
With PAM**

## Stryker Integration kit



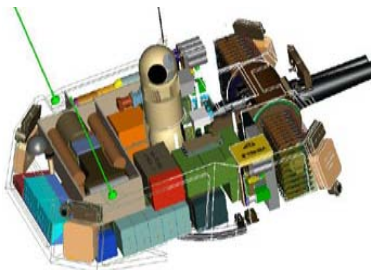
### Active Protection System



### 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



### 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



### Integrated Computer System

### More Battle Command

- APS Sensor Shooter Link

# Spin Out 3 Capabilities (Includes Spin Out 1)

## Abrams, Bradley, HMMWV Integration kits



Full  
Battle  
Command



Integrated  
Computer  
Systems  
Type 1 & 2

Network



Displays



Common  
Controller

### 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)

Class I  
UAV



Class IV  
UAV



Small  
Unmanned  
Ground  
Vehicle



Armed  
Robot  
Vehicle  
Light

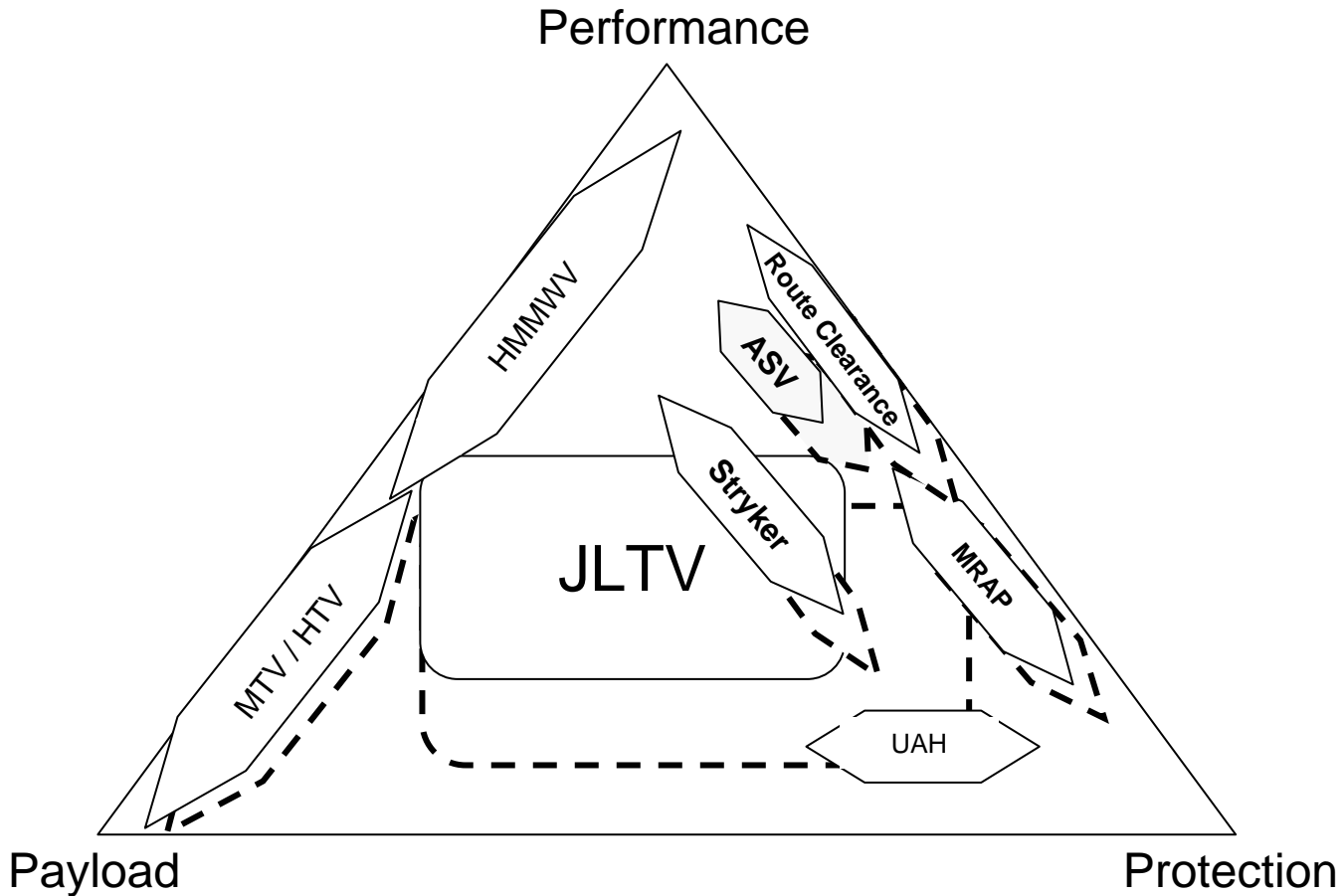


### Unmanned Systems

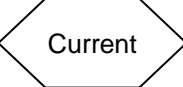

- Protects / Enables Soldiers On High Risk Missions In Complex Terrain
  - Sensing, Breaching, Clearing Buildings And Tunnels
  - Remote Recon And Detection And Neutralization Of Booby-traps, Landmines And Explosive Threats
  - Remote Mine And CBRN Detection
- Persistent Surveillance Using Layered Sensors (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**

	—	Base Capability
	- - -	Expanded Capability

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

Note: Dotted lines are not scaled to actual future capabilities