

# ***Army Transformation***

## ***TRADOC Perspective***

**NDIA Conference  
Parsippany, NJ  
19 June 2001**

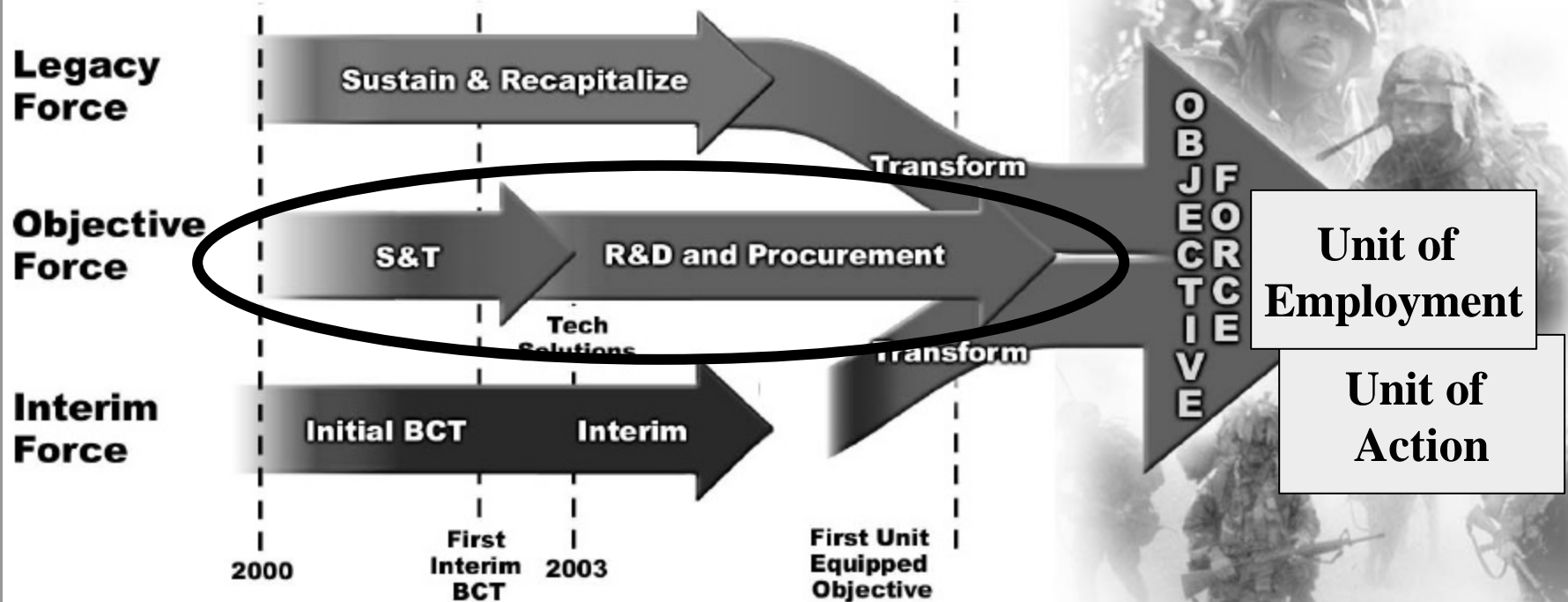
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# *The Army Transformation*



*... Responsive, Deployable, Agile, Versatile,  
Lethal, Survivable, Sustainable.*



## *Purpose:*

### *Information brief on Future Combat System Combat Battalion Operational and Organizational Concept*

- *Operational Environment*
- *The FCS Foundation*
- *Qualities of “First”*
- *How It Fights – What’s Different?*



# *Why Transformation*

*Our studies lead us to the following conclusions:*

- Reach block obsolescence around 2010*
- Geography and weather play a significant role in future operations*

*Review of lessons learned during inter-war period prepares us for the future*



*The human dimension  
is the strategic driver  
for transformation*



# *The Foundation of Army Transformation*

## *Nature and Conduct of War*

### Enduring Nature

- Political Activity by Other Means
- Violent Act of Compulsion
- Uncertainty and Risk are Constraints
- Multitude of Variables Places Premium on Creativity of Commander
- Brutal, Ugly, Destructive, Personal
  - Human Dimension



### Changing Conduct

- Technologies and Capabilities Mandate Change
- Changes in methods—tactics, strategies
- Expanding Battlespace – Non-linear, expanding reach
- Information and Information Superiority
- Increasingly Joint, Multinational and Interagency
- History is an incomplete guide

*Better is Better*

Bottom Line: Objective Force O&O Recognizes the Enduring Nature of Warfare. Accounts For Changing Conduct of Warfare by New Methods and Acknowledges The Human Dimension Across Both. Seeks To Adapt To Changing Conduct of Warfare Faster Than Adversaries.



***Future Operational Environment  
Potential Adversaries Will Apply  
Lessons Learned From Our Successes***

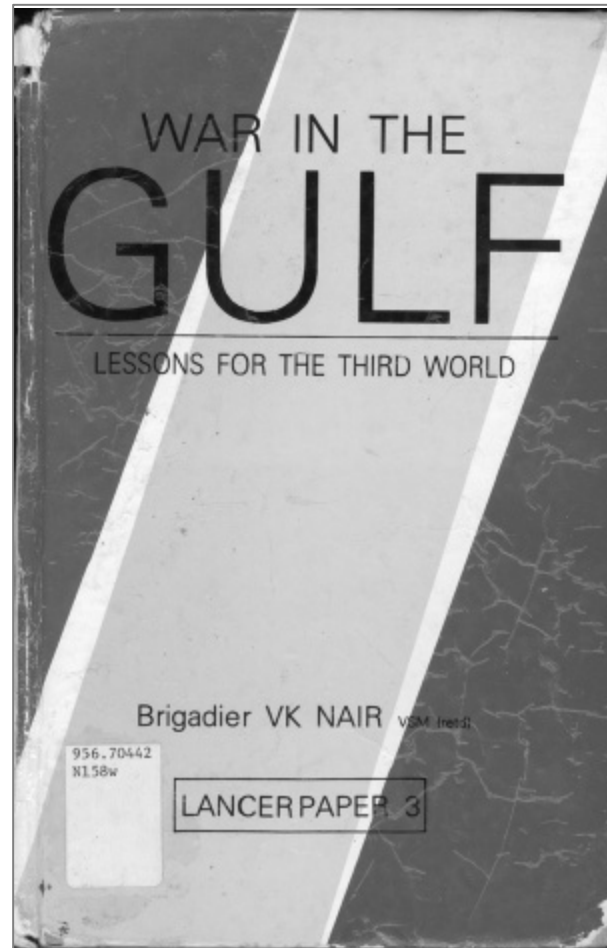
**...Grenada**

**...Panama**

**...Haiti**

**...Bosnia**

**...Desert  
Storm**



**...Rwanda**

**...Somalia**

**...Kosovo**

**...Our Success Compels Future Adversaries To Change  
To Become More Powerful, More Sophisticated, More Dangerous**

# *Future Operational Environment*

Increasingly sophisticated opponents . . .



SASO

SSC

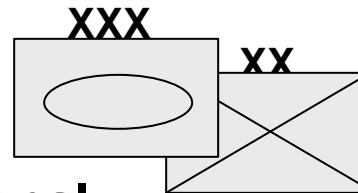
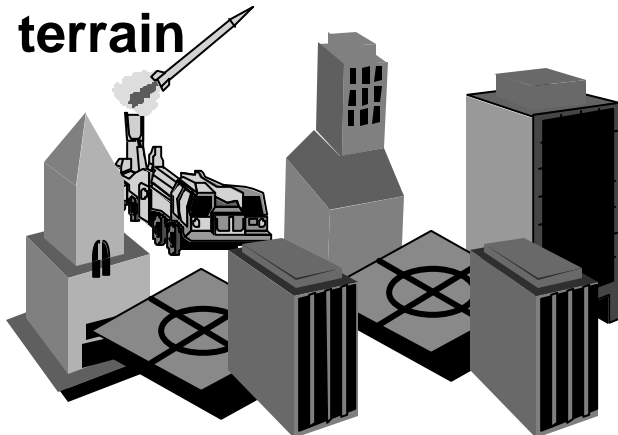
MTW



Global proliferation of weapons technology

**Tactics**

- Conventional + Unconventional
- Asymmetric, Adaptive
- Seek sanctuary in urban, complex terrain



**In all terrain sets**



Expanded target set ranges from combined Arms formations to insurgents / guerrillas

*Which requires...  
General purpose force  
complemented by special  
purpose forces*





# Attacking US Vulnerabilities

## The Paradigm

A Force Projection  
Military Must Have  
**ACCESS**  
as its Cornerstone  
in the Area of  
Operations.

## The Vulnerability

Access Requires  
APODs and SPODs  
Forward Bases (Air, Land  
and Sea)  
Logistics Stockpiles  
Secure LOCs  
Long haul C2  
Technical ISR

Threat  
Response

SOF/Terrorists  
Precision Strike  
Chemical & Biological  
Theater Ballistic  
Missiles  
Air and Missile  
Defenses Counter  
Precision  
Counter C4ISR

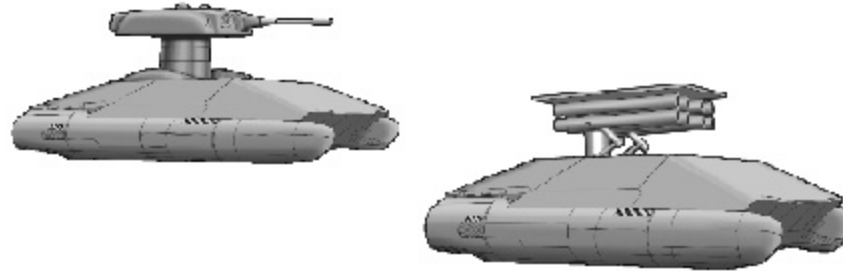
## The Pattern

Demands Military  
Strategy of:  
Entry Operations  
Buildup of Capability  
Air/Missile Campaign  
Ground/Air Campaign  
Transition Operations

Common View by  
Foreign Militaries  
of US  
Operations



# *Unit of Action and FCS*



*Build it around force effectiveness,  
not platform effectiveness...*



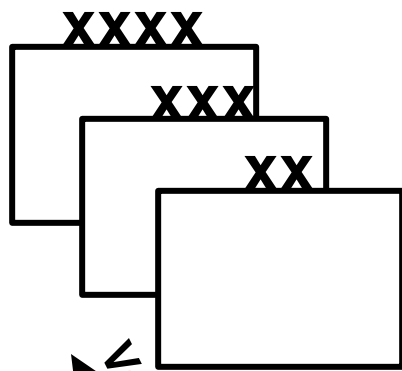
*... to enhance the human  
dimension*



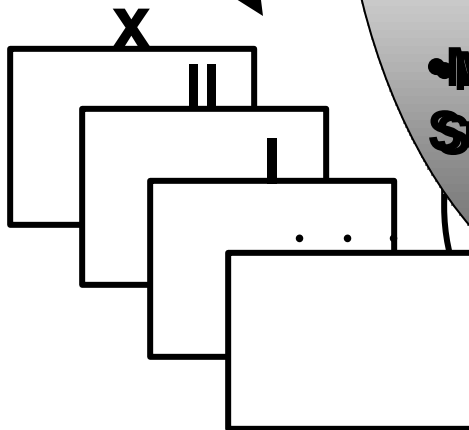
*We are recruiting the objective  
force soldier today!*



# *FCS: Opn'l concepts & Org'l design*



Vertical & Horizontal  
Task Analysis



## Unit of Employment

- *Command & leadership*
- *ISR*
- *Mobile Strike*
- *Continuity of effort*
- *Decisive full-spectrum*

## Unit of Action

- *Maneuver & fires*
- *Assault*



# Close Combat

*Needed: a Combat System-of-Systems that generates overmatching Fire, Maneuver, & Assault to destroy the enemy.*

**Extend tactical reach**

**Fire & Maneuver**  
**Assault**

**Close Combat**

**Isolate**

*Expected Outcome  
S&T community develops capabilities essential to the Future Combat System*

Close combat is combat carried out with direct fire weapons, supported by indirect fire, air-delivered fires, & non-lethal engagement means. Close combat defeats or destroys forces or seizes & retains ground. The range between combatants may vary between several thousand meters down to hand-to-hand combat. Close combat has one purpose—to decide the outcome of battles & engagements.

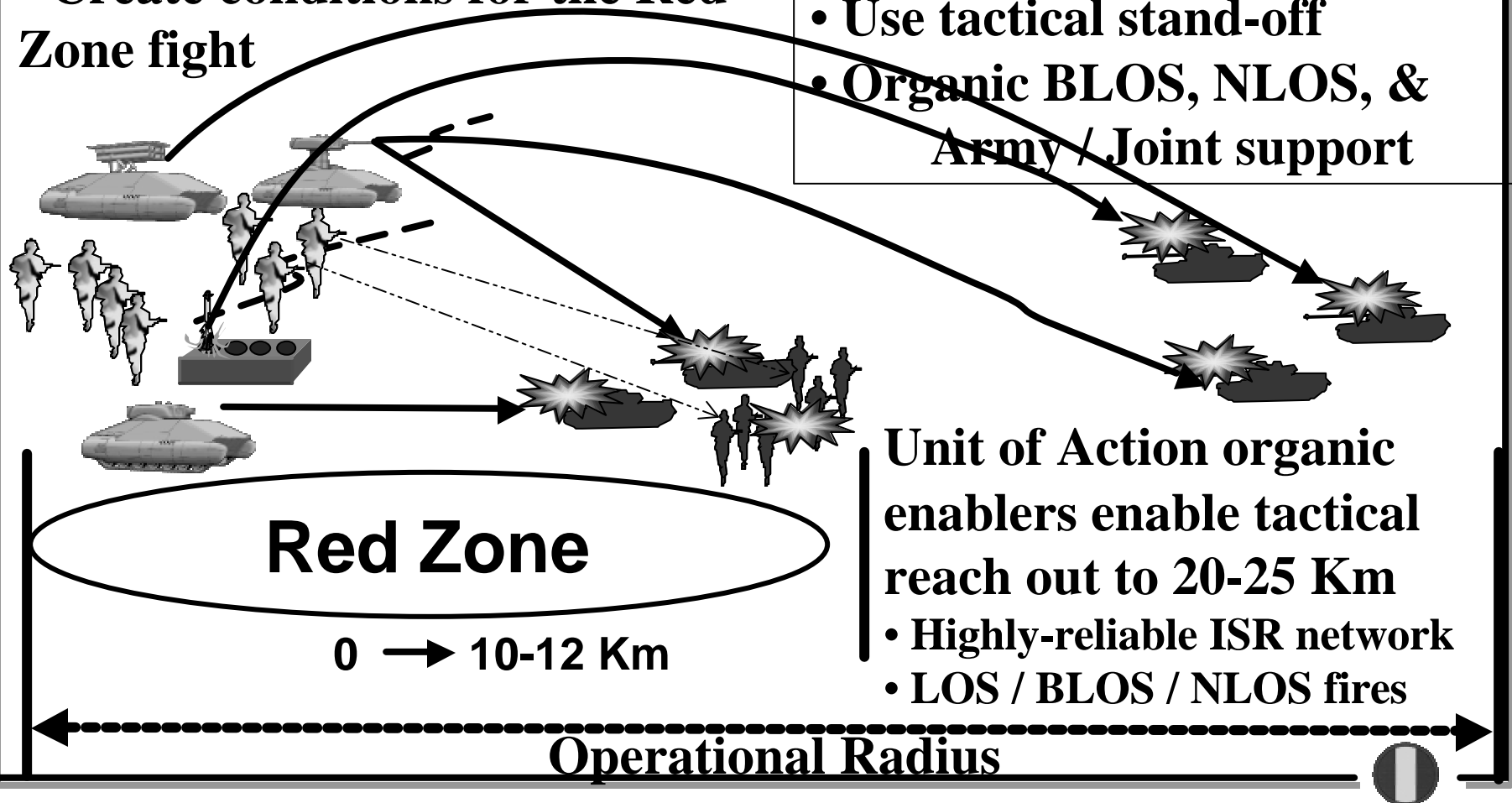
# Close Combat

## First - Shape the fight

- Develop situation out of contact
- Posture for success
- Set the enemy up for failure
- Create conditions for the Red Zone fight

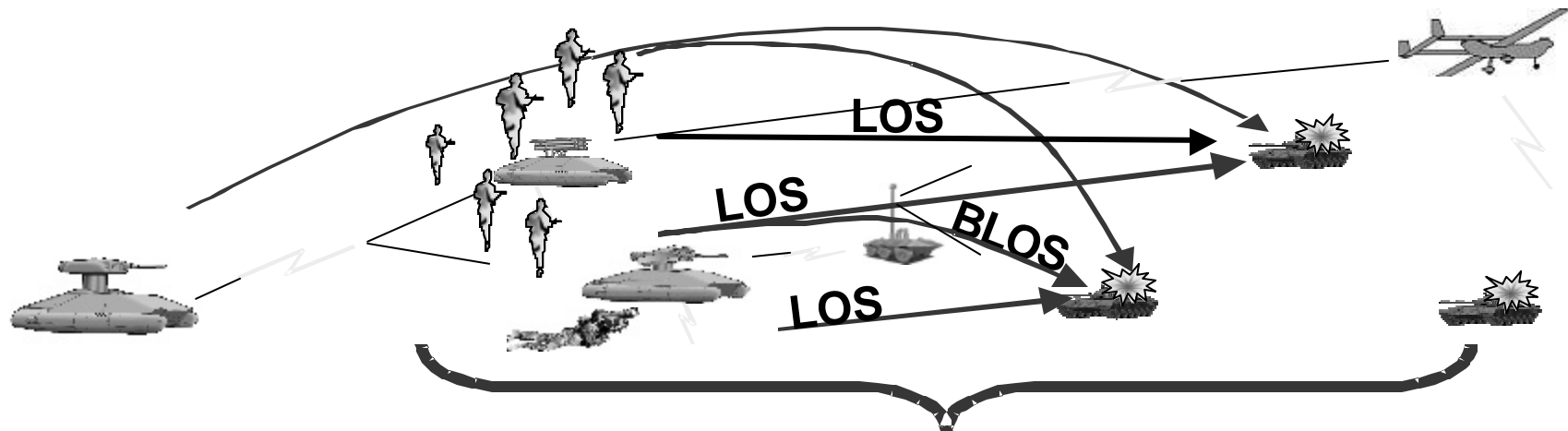
## Then - Decisive tactical combat

- Engage first
- Maneuver to position of advantage
- Use tactical stand-off
- Organic BLOS, NLOS, & Army / Joint support



# *The Red Zone*

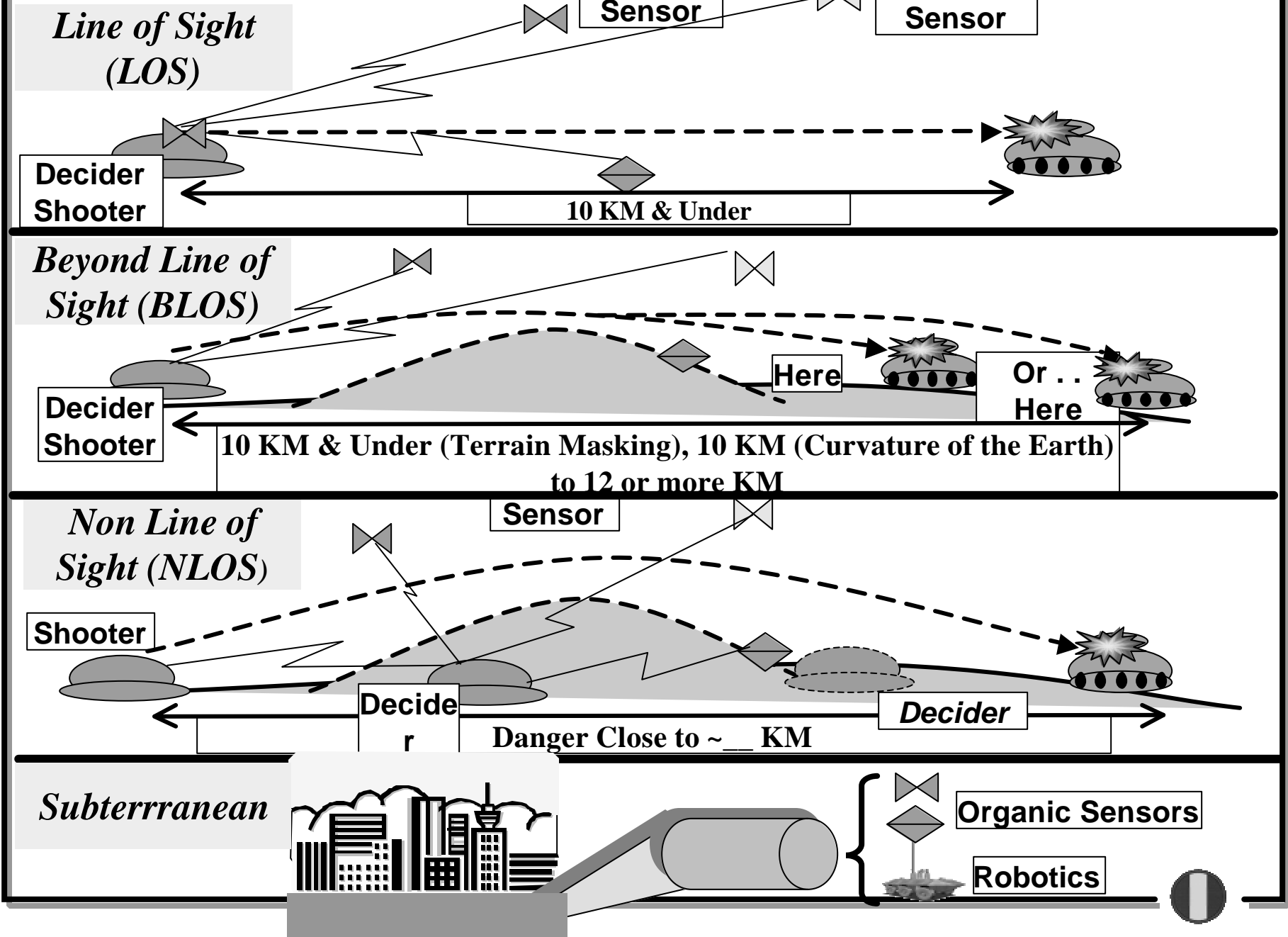
- *The space where Combat battalions execute decisive combat*
- *A set of conditions & a temporal location*
- *Developed out of contact*
- *Possesses both linear & non-linear characteristics*
- *Red Zone fight can be waged using tactical stand-off supported by close combat assault; assault supported by tactical stand-off, or in balanced combination*
- *Principal defeat mechanism is destruction*



*The Red Zone*

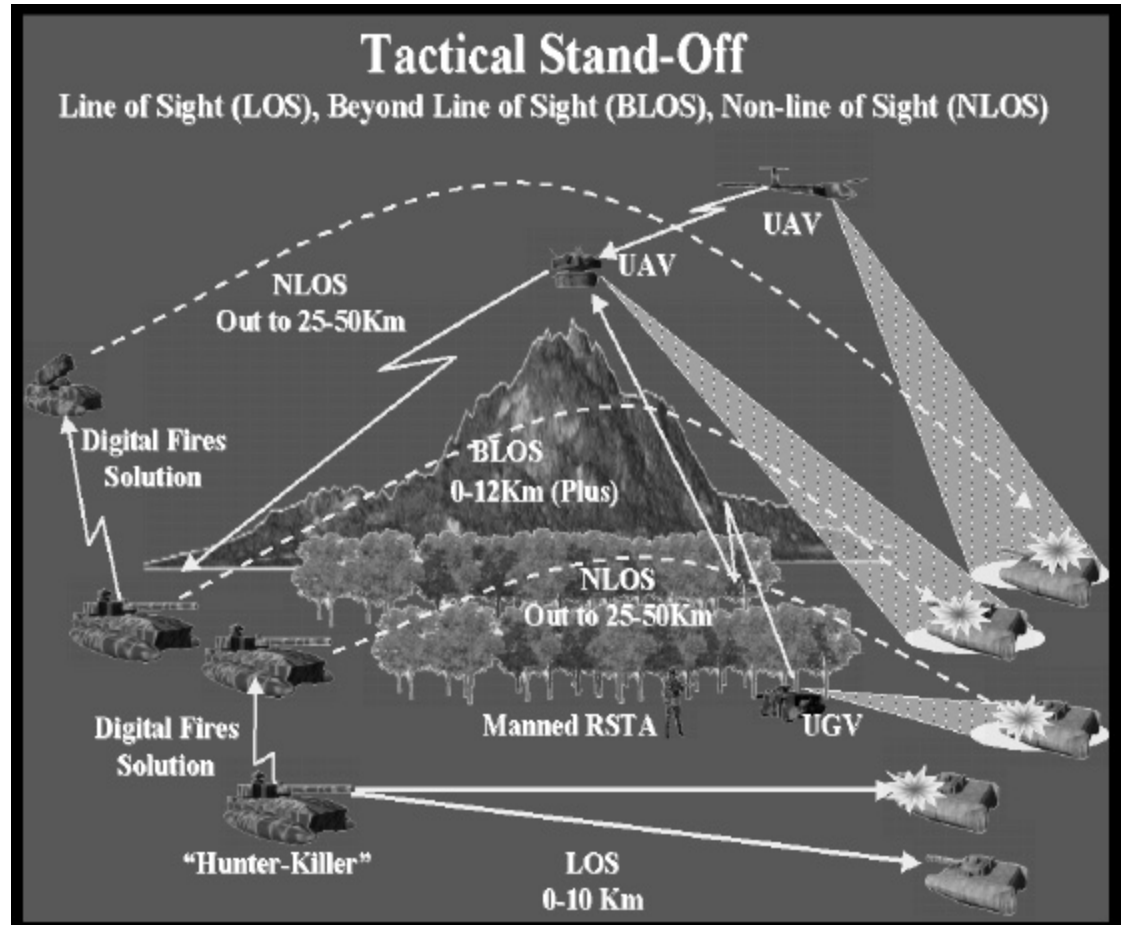


# LOS, BLOS, NLOS



# *Close Combat – Fight from Tactical Stand-off*

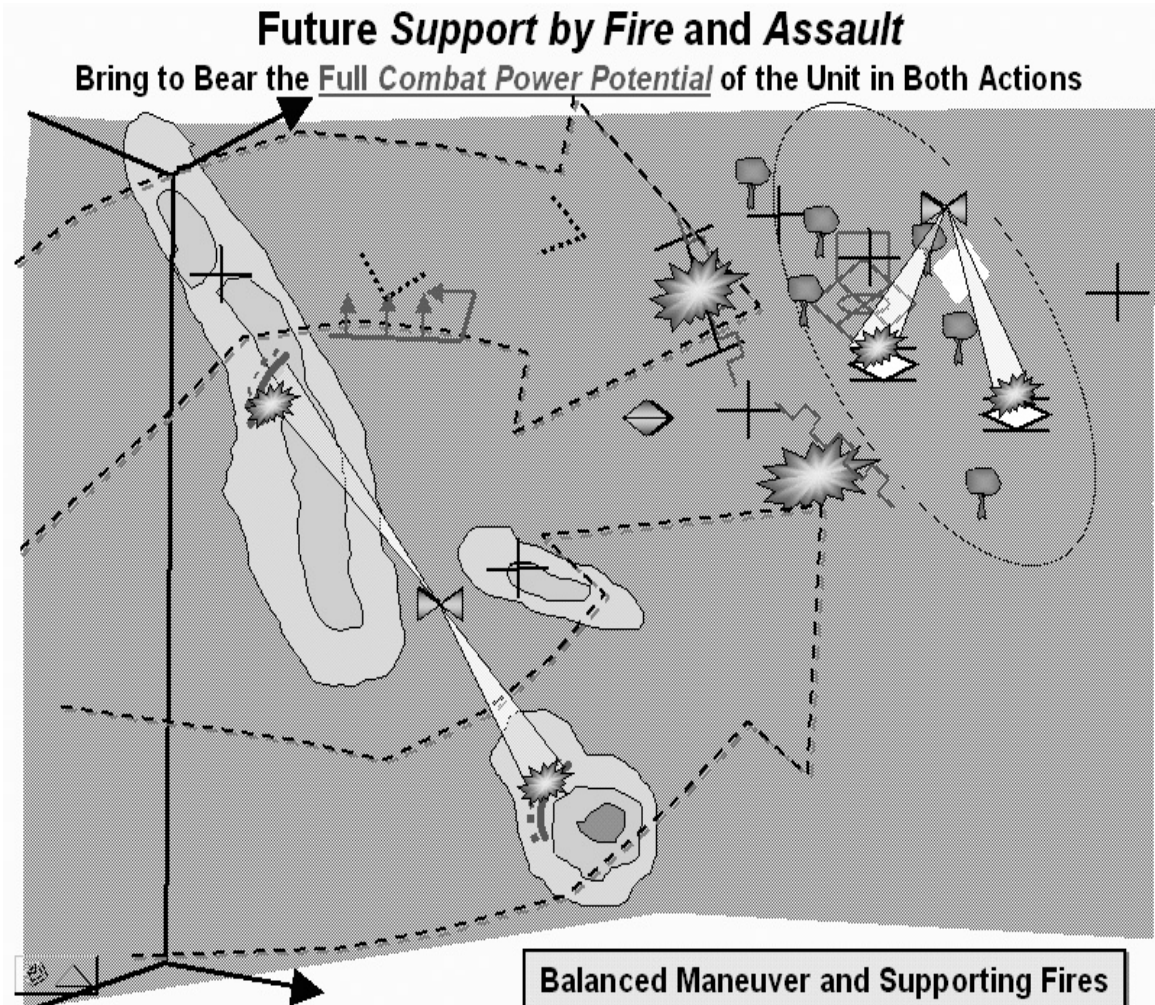
- *Principal method for winning the Red Zone fight*
- *Engage enemy at distance with BLOS or NLOS fires*
- *Tactical stand-off using LOS, BLOS, & NLOS capabilities create dilemma for the enemy. Enemy finds no single focus for defense, counter action, or protection*





# *Close Combat – Execute Close Combat Assault*

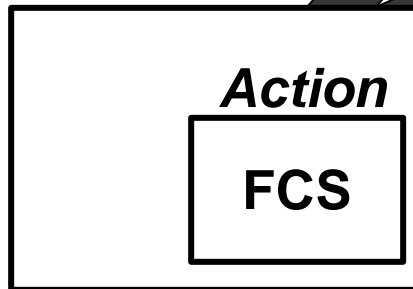
- *Complements effects of tactical stand-off with overwhelming fires & tactical maneuver*
- *Assures enemy defeat or destruction*
- *Combat Battalion subordinate elements execute support-by-fire & assault tasks near simultaneously & employ fighting teams in mounted & dismounted actions*



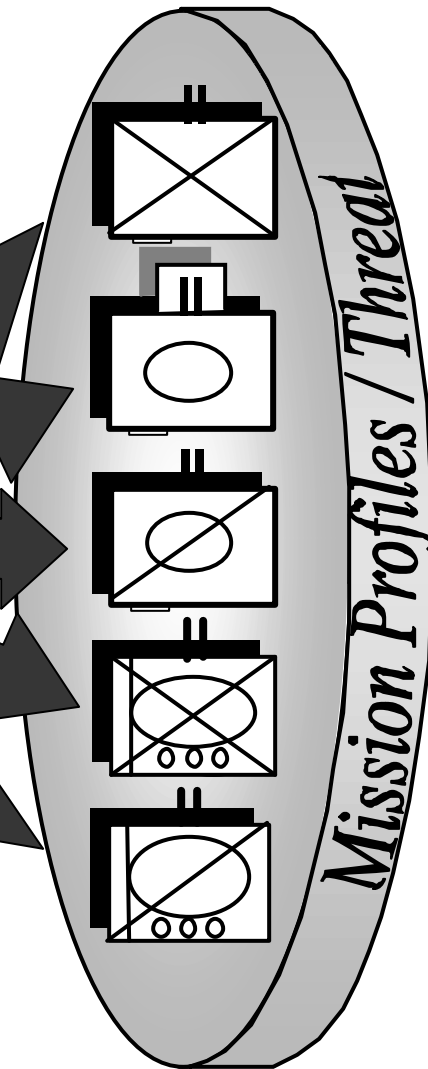
# *FCS Developmental Strategy Integrating New Concepts*

**Accounting for  
diverse  
requirements**

**Employment**



**A platform to  
develop  
solutions for...**



**New concepts –  
commonality in  
leader, materiel,  
small unit design –  
to advance our  
ability to close with  
and destroy an  
enemy through**

- **Fire and maneuver**
- **Tactical assault**



# *FCS Combat Battalion Mission Profile*

- *Attack against prepared infantry defenses*
- *Counterattack against advancing mechanized force*
- *Rapid reposition by air to conduct hasty attack*
- *Overland forced entry to secure site 50 km from landing site*
- *Hasty defense against dismounted night attack*
- *Defend against mounted / dismounted attack*
- *Defend strongpoint against dismounted infantry*
- *Combat recon for division offensive operations*
- *Secure a zone to separate warring factions*
- *Rear area security operations for division / corps*

Mission set reflects examples of critical combat tasks across the spectrum of operations for analysis of the Combat Battalion



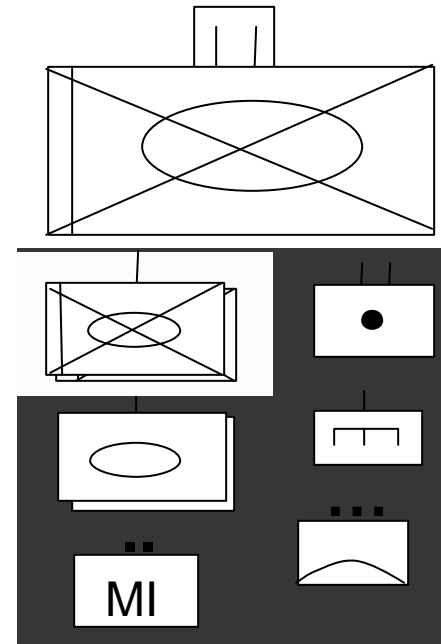
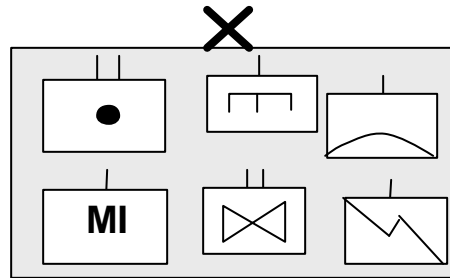
# *Building Combat Power Today*



## *FCS Equipped Combat Battalion*

$$Cbt\ Power = (Mnvr + Firepower + Prot)(Ldrshp)$$

Organic Reinforcing Fires  
External Complementary



### **Coordination & Task Organization Costs:**

- **New team dynamics – ad hoc relationships**
- **C2 overhead**
- **Uncertain or untimely access to combat multipliers**
- **Unit cohesion**



# *Building Combat Power Tomorrow*

## *FCS Combat Battalion*

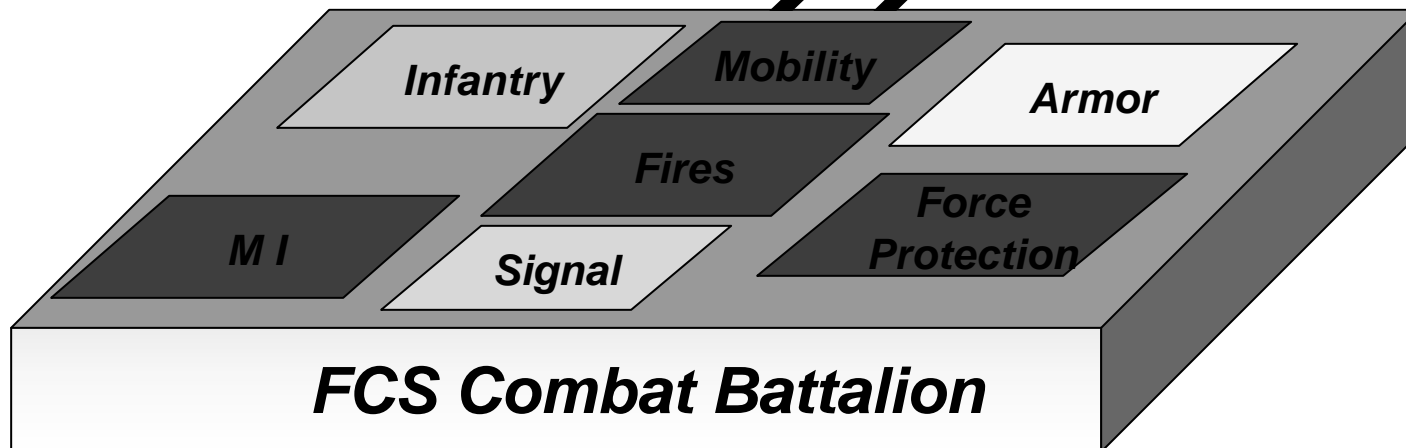
$$Cbt\ Power = (Mnvr + Firepower + Prot)(Ldrshp)$$



**Organic Fires  
Organic Complementary  
External Complementary  
and Reinforcing**

- **See first**
- **Understand first**
- **Act first**
- **Finish Decisively**

**Functions of:**



# *Leadership*

*FCS*

*... a system of systems...*

*... for a team of teams...*

*... Soldiers enabled by technology*

*With enhanced leaders to  
enable full spectrum  
capability*



*Leadership... the driver for full spectrum capability*

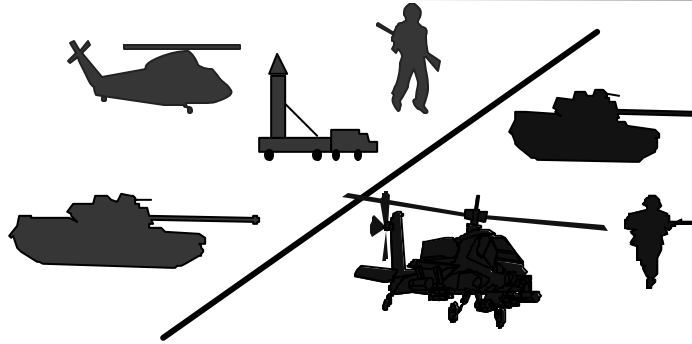


# *See First*

## *The parts, the whole, the environment*

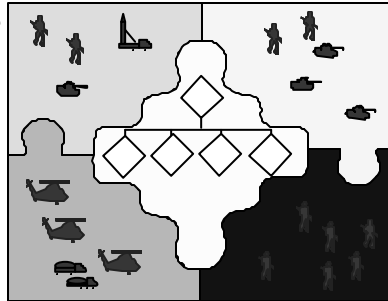
### See the parts:

- Detect
- Identify
- Track



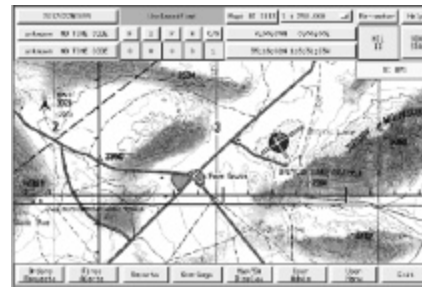
### See the Whole (Recognize):

- Aggregate
- Fuse



### See The Environment:

- Terrain
- Weather
- Population



### Force enemy to see last

### Blind the enemy:

- Obscurants
- Jamming/counter-sensor
- Signature reduction
- Pattern avoidance
- Deception



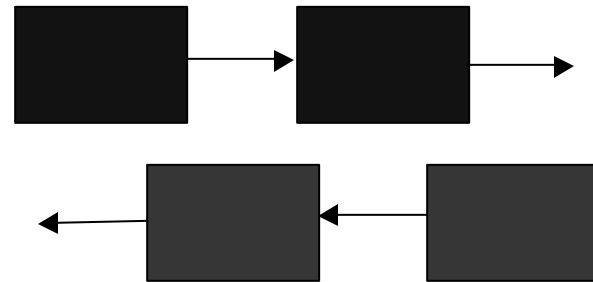
# *Understand First*

## *The Pattern, the Next Step*

### Understand: See the Pattern

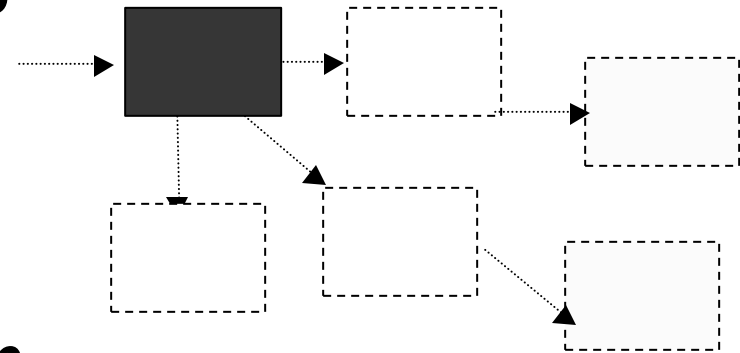
#### Concept of operations

- Scheme of maneuver
- Centers of gravity
- Decisive points
- Vulnerabilities



### Understand: See the Next step

- Enemy intent
- Where enemy will go
- ID likely methods
- Reaction and counteraction



Force enemy to understand last

- Deception
- Pattern avoidance
- Irregular battlefield geometry





# *Act First*

## Platform:

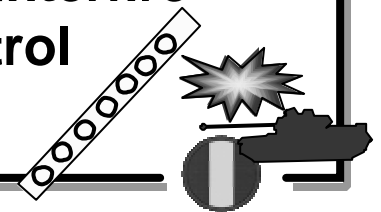
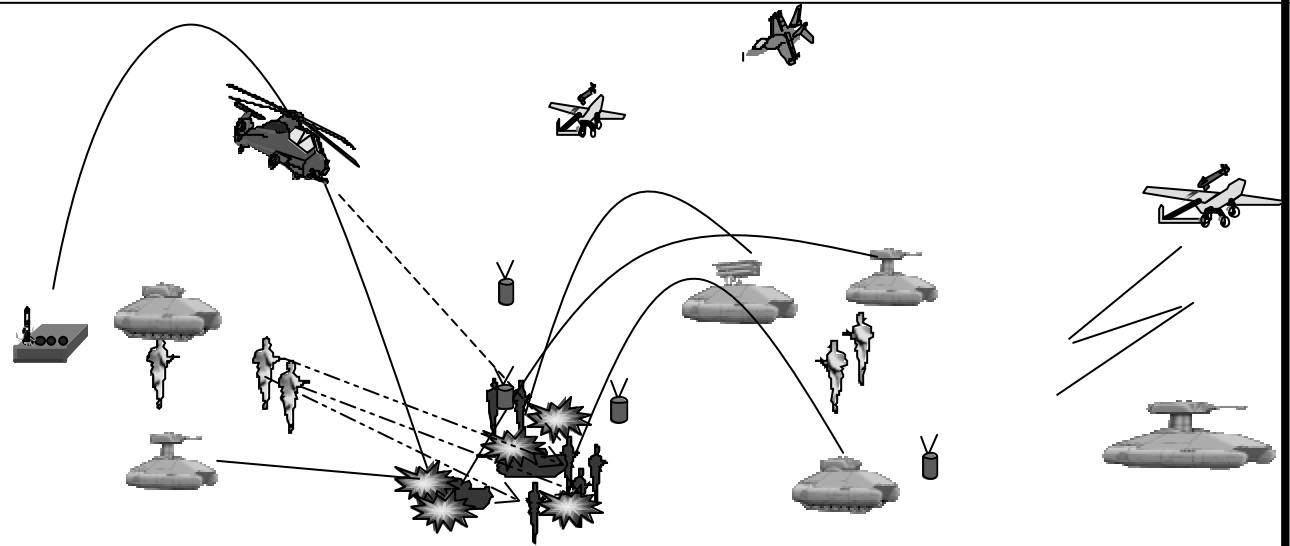
- Shoot
- Move
- Reengage

## Unit:

- Determine options
- Decide first
- Act to force reaction
- Transition to counteractions
- Establish Red Zone
- Execute shape action
- Transition to Red Zone
- Synch fires and maneuver
- Transition to assault

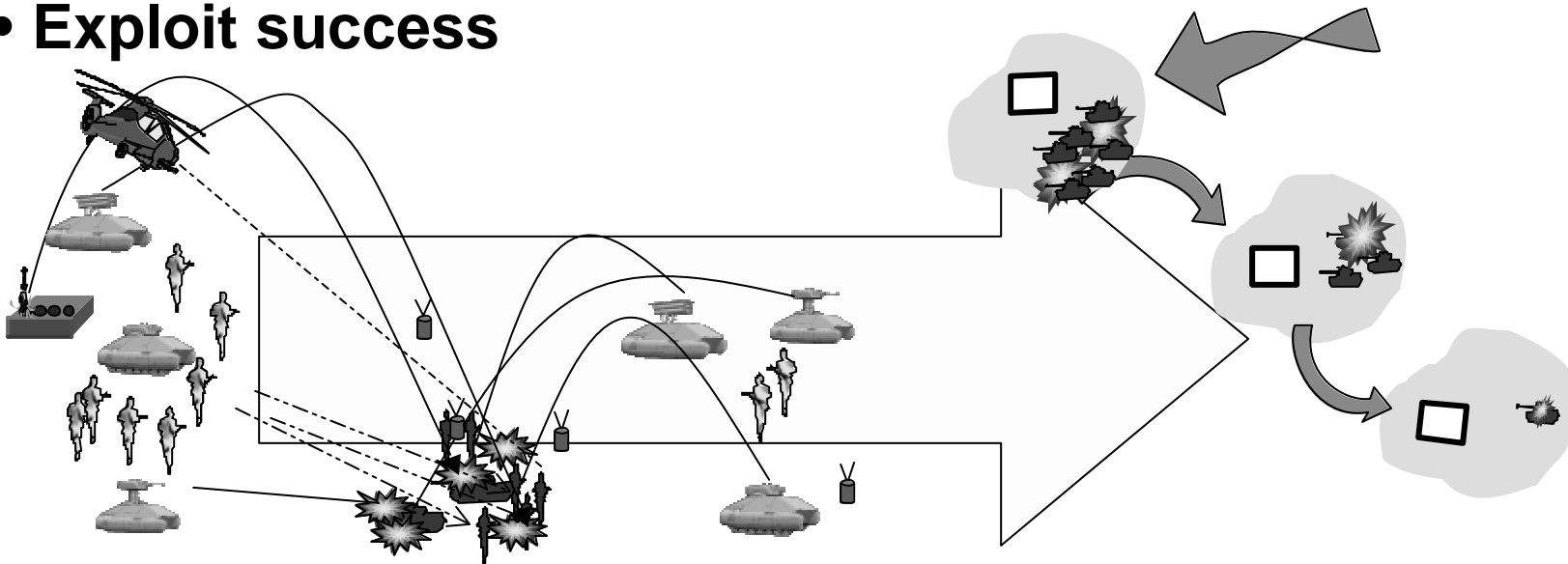
Force enemy to  
act last or wrong

- Remotely emplace obstacles
- Preemptive & Immediate counterfire
- Jam computers & wpns control
- Deceive



# *Finish Decisively*

- **Destroy enemy ability to synch fight**
- **Eliminate enemy freedom of action**
- **Exploit success**



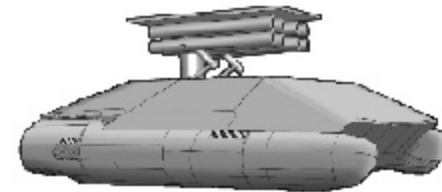
- **Conduct close combat -- transition to assault**
- **Follow through to enemy destruction – exploitation & pursuit**

- **No tactical pause**
- **Focus on “Profitable Fight”**
- **Block moves to sanctuary**

- **Mission Staging of mnvr sustainment**
- **Vertical Envelopment**
- **Disrupt communications**
- **Remotely placed obstacles**
- **Logistics efficiency**

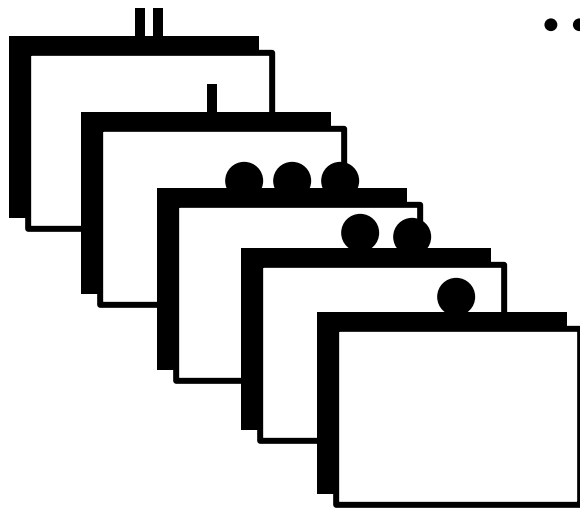


# *Unit of Action and FCS*



*It's about force effectiveness...*

*... of fighting teams that  
promotes and exploits  
initiative of...*



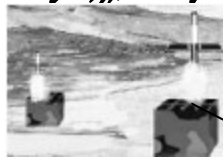
*...Soldiers, Units, Systems, and Leaders*



# *Pursuit of Technology - Lethality*

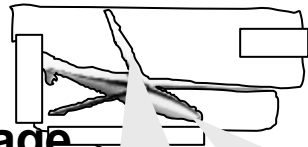
## **Objective Force NET Fires in Support of Maneuver**

- Instant clearance of fires
- Direct sensor to shooter linkage
- Enhanced BLUEFOR COP  
& increased lethality



### **NET Fires**

- Indirect fires capability
- Modular multi-mission precision munitions
- Platform interdependent .... Manned / unmanned



## **A160 Robotic Helicopter**

- 300 lb payload
- > 2500 NM Range
- 24 hour loiter time
- Integrated sensors / comms packages

### **RF Tagging**

- “Passive” location and status reporting
- Reduced bandwidth
- Reduced detectability
- No power requirement

**Responsive, accurate fires at tactical standoff.**

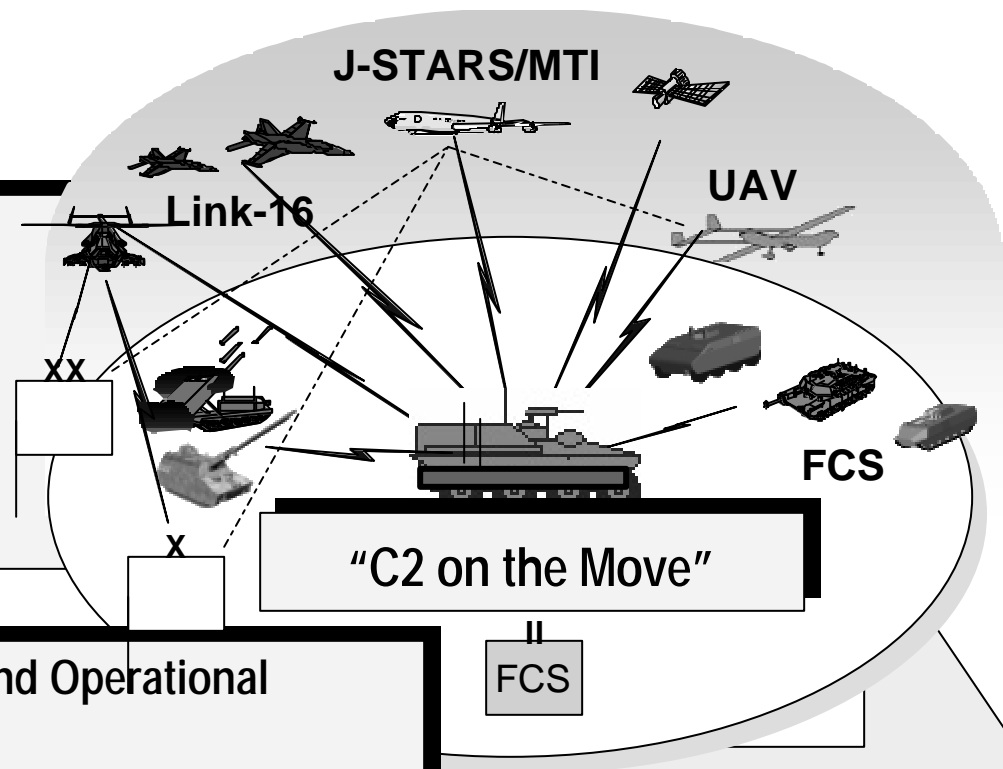


# Actualizing Future Command and Leadership

Combat Power = (Mobility + Firepower + Protection) (Leadership) Information

**BOTTOM LINE:**

- ▶ Commander's are *Tethered* to CP's
- ▶ Current CP's are *too* Large and Immobile
- ▶ C2 "On The Move" is *the* Missing Link



**Design C4ISR to:**

- ▶ Enable C2 "On The Move" for Tactical and Operational Leaders
- ▶ Enable Information Dominance Across METT-T
- ▶ Force Effectiveness for Decisive Ops
- ▶ Rapid Sensor - to - Shooter Links
- ▶ Synchronize All Elements of Combat Power
- ▶ Empower Commander no matter where he is with Combat Information

**C4ISR is:**

- ▶ More Than Decision-Making and Targeting - IT'S ABOUT EMPOWERING ORGANIZATIONS THROUGH LEADERSHIP
- ▶ Not About Knowledge - IT'S ABOUT PROPER OUTCOME ON THE BATTLEFIELD

# *Summary*

- **Although the Nature of Warfare is Enduring, The Conduct is Changing**
- **Operational Environment and Operational Lessons Learned Point To the Needs for Army Transformation**
- **TRADOC is Framing Operational and Organizational (O&O) Concepts within context of the changing Operational Environment, Lessons Learned, Full Spectrum Operations, Joint Operations, and the Human Dimension**
- **O&Os provide the framework and context for Science and Technology**
- **S&T provides the means to achieve the Objective Force**

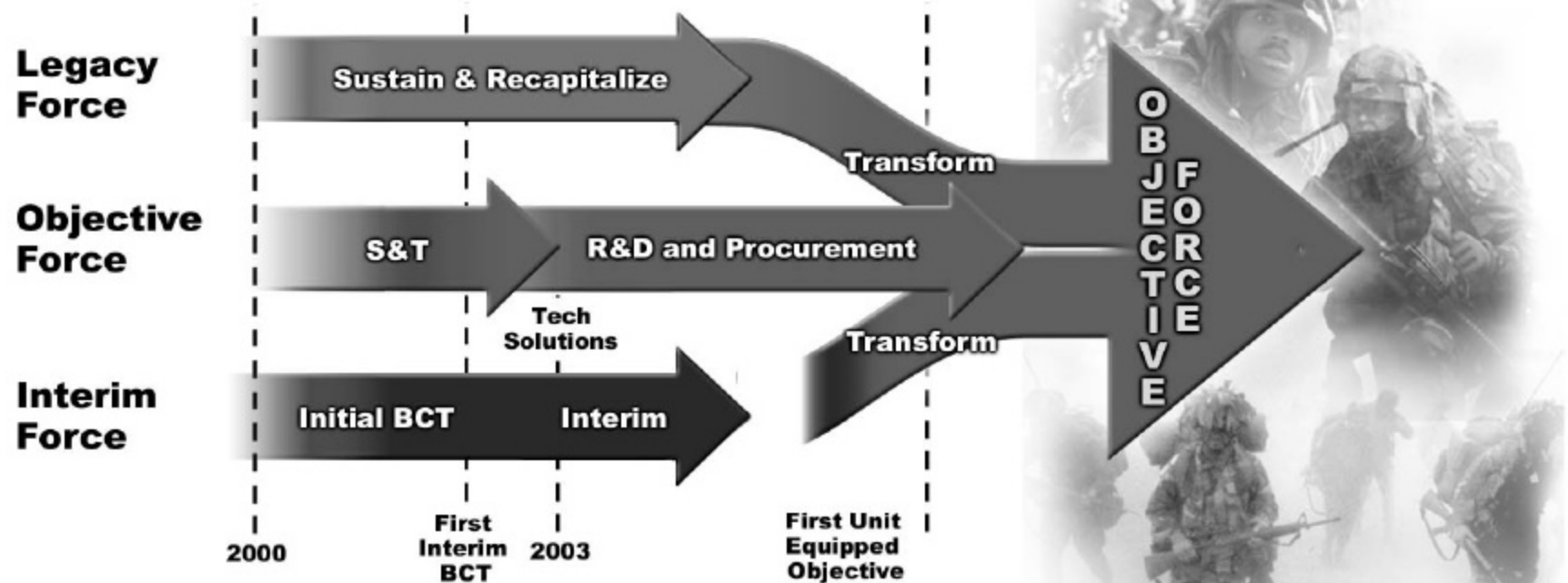
**Requires Tight Knit Partnership and Teamwork of Combat Developer, Science and Technology and Materiel Developer Communities.....**

***Including Industry to Make It Happen***



# *Questions?*

## ***The Army Transformation***



***... Responsive, Deployable, Agile, Versatile,  
Lethal, Survivable, Sustainable.***

