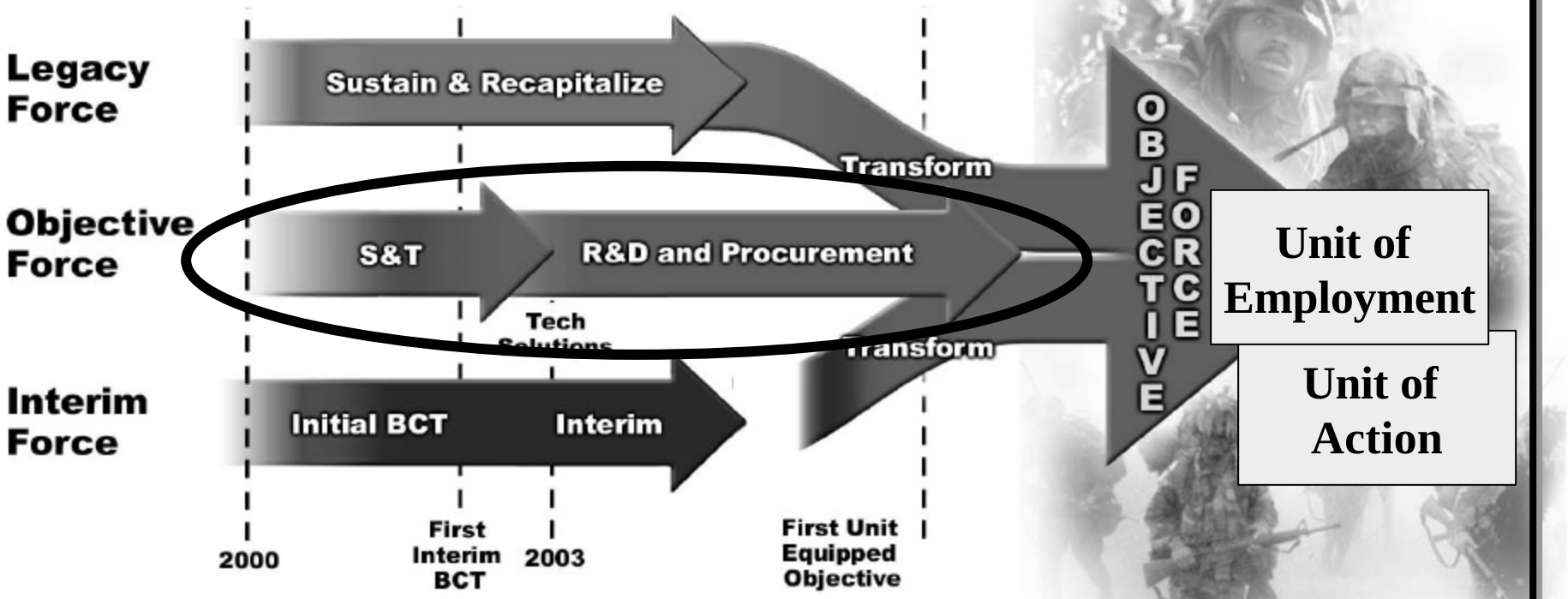
Army Transformation

TRADOC Perspective

NDIA Conference
Parsippany, NJ
19 June 2001

Mr. Edwin W. Mazzanti
Battle Labs Integration and Technology Directorate
DCS for Combat Developments
HQ, TRADOC

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

<u>Enduring</u> 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**

<u>Changing</u> 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 <u>Nature of Warfare</u>. Accounts For Changing <u>Conduct of Warfare</u> 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
<u>Lessons Learned From Our Successes</u>

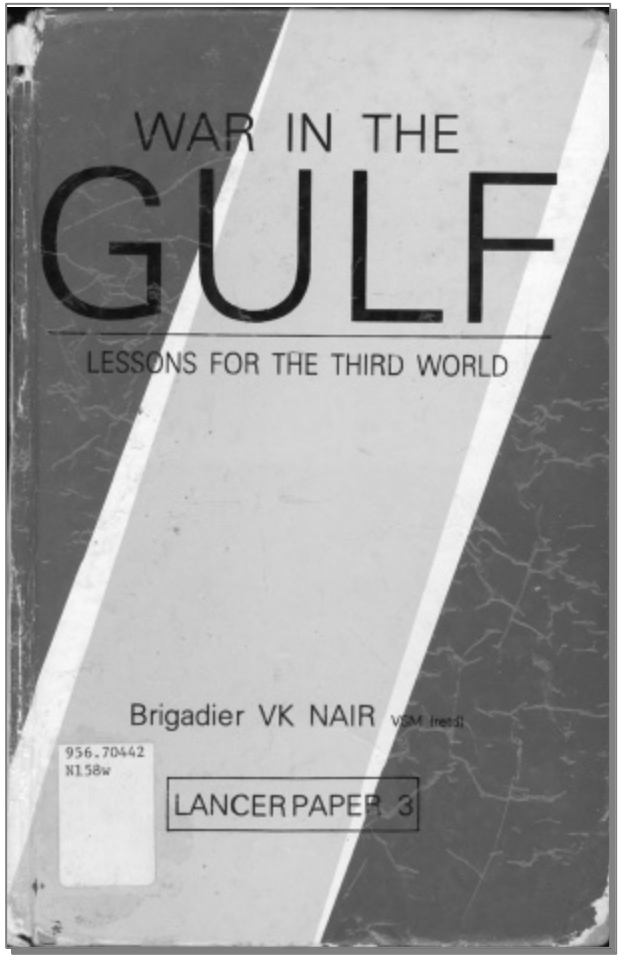
...Grenada

…Panama

…Haiti

…Bosnia

…Desert Storm



…Rwanda

….Somalia

….Kosovo

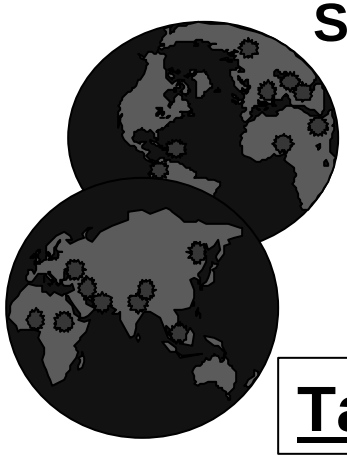
…Our Success Compels Future Adversaries To Change

To Become More Powerful, More Sophisticated, More Dangerous

Future Operational Environment

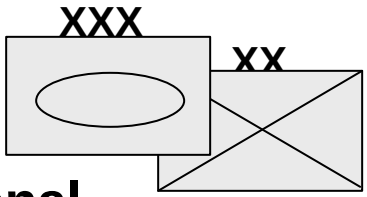
Increasingly sophisticated opponents . . .

SASO **SSC** **MTW**



Global proliferation of weapons technology

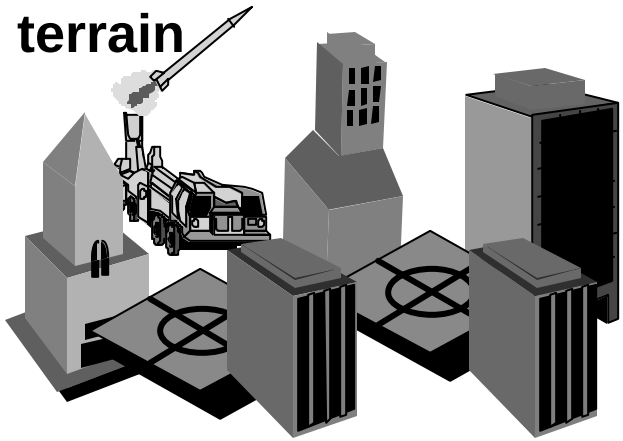
In all terrain sets



Tactics

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

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

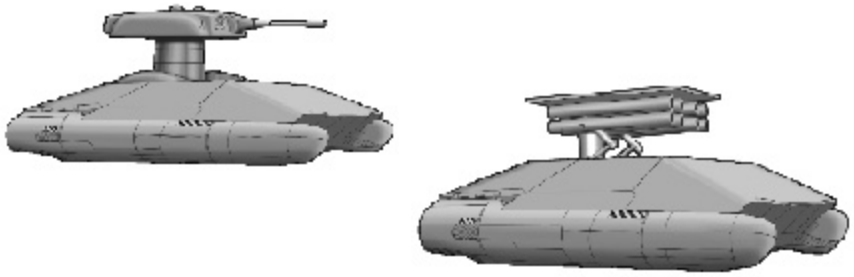
The Pattern

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

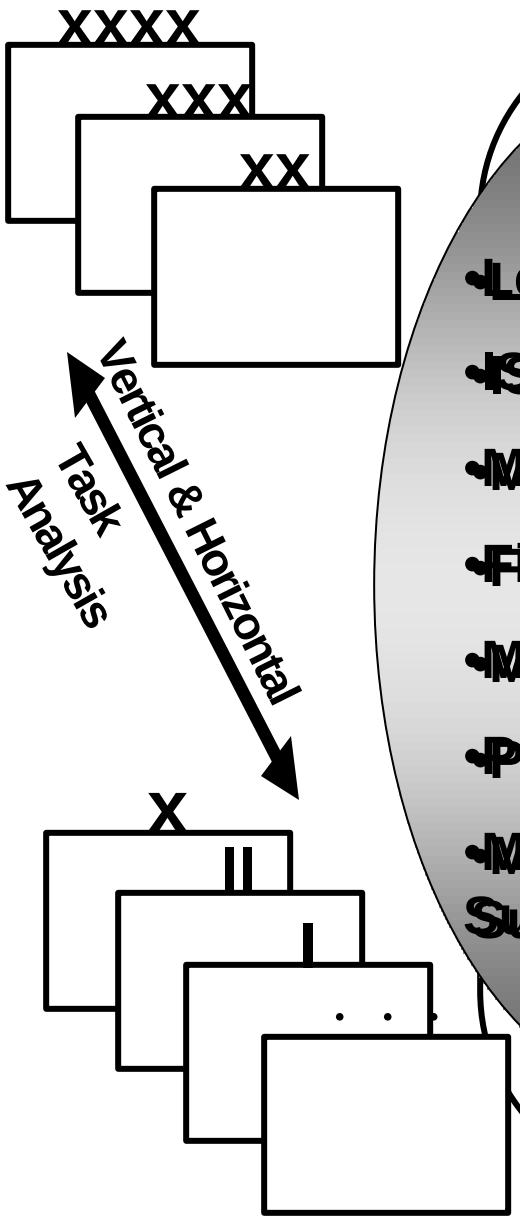


Build it around force effectiveness, not platform effectiveness…

… to enhance the human dimension

We are recruiting the objective force soldier today!

FCS: Opn'l concepts & Org'l design



BFA Analysis

- Leadership & C2
- ISR
- Maneuver
- Fires
- Maneuver Support
- Protection
- Maneuver Sustainment

Unit of Employment

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

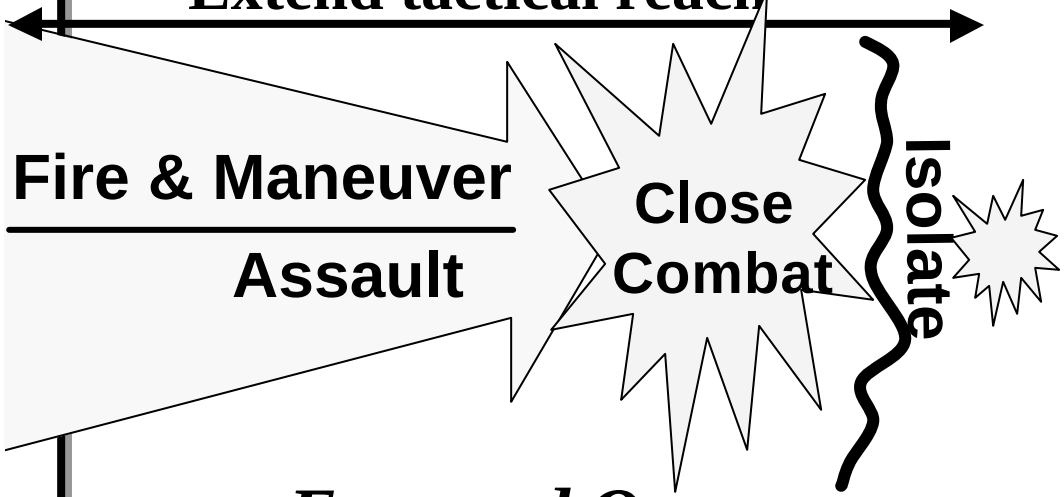
Unit of Action

- *Maneuver & fires*
- *Assault*

Close Combat

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

Extend tactical reach



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.

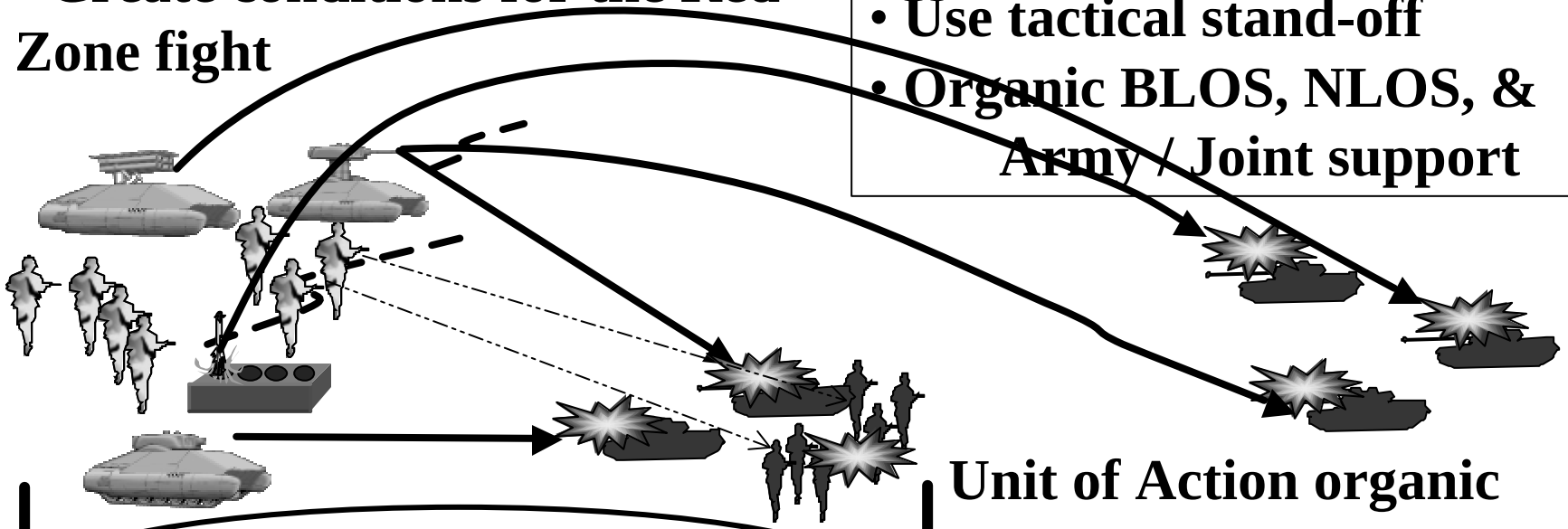
Close Combat

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**



Red Zone

0 → 10-12 Km

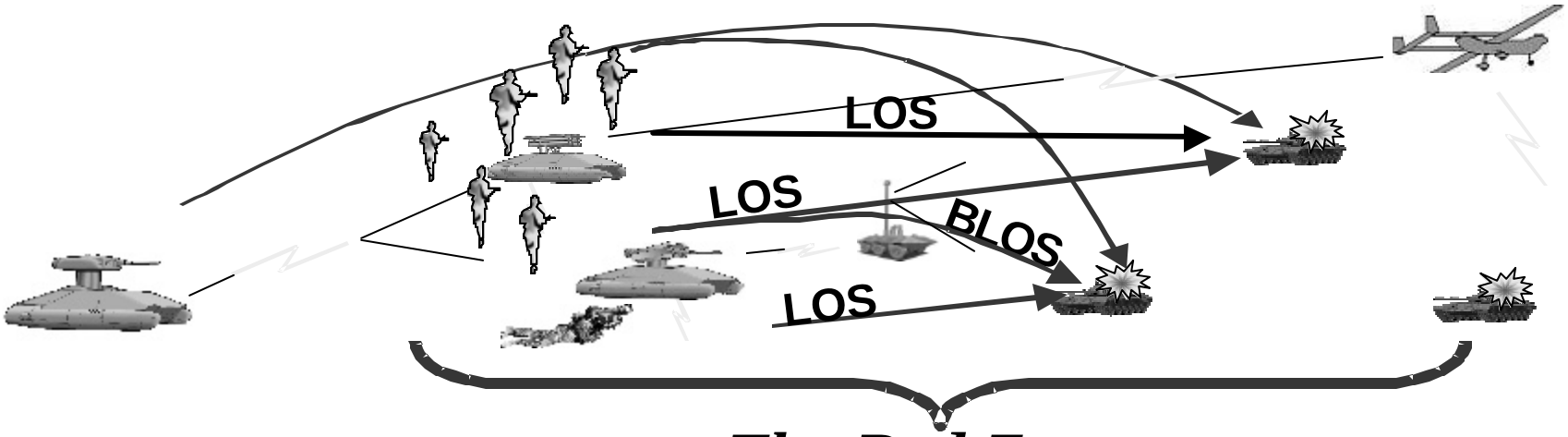
Unit of Action organic enablers enable tactical reach out to 20-25 Km

- **Highly-reliable ISR network**
- **LOS / BLOS / NLOS fires**

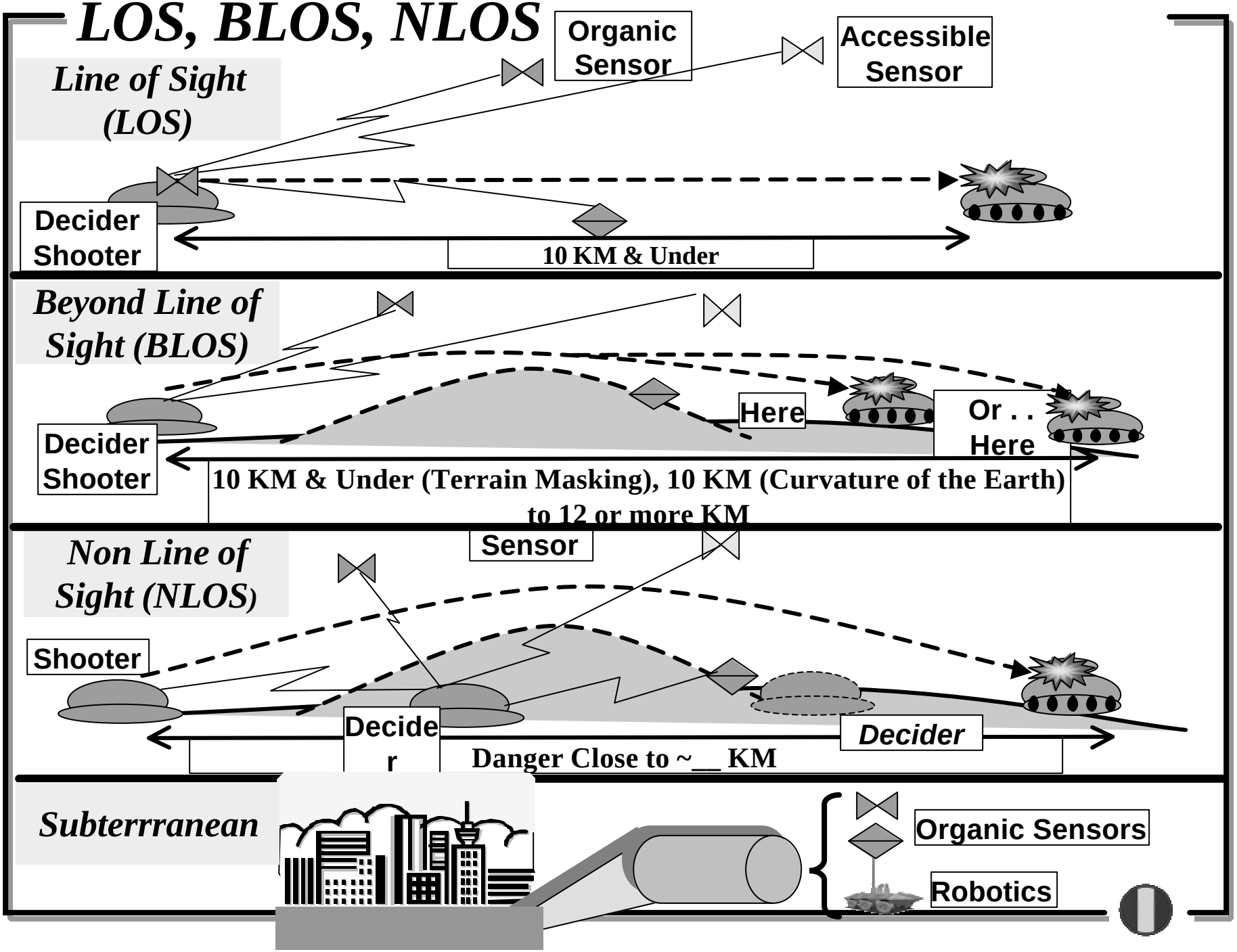
Operational Radius

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***

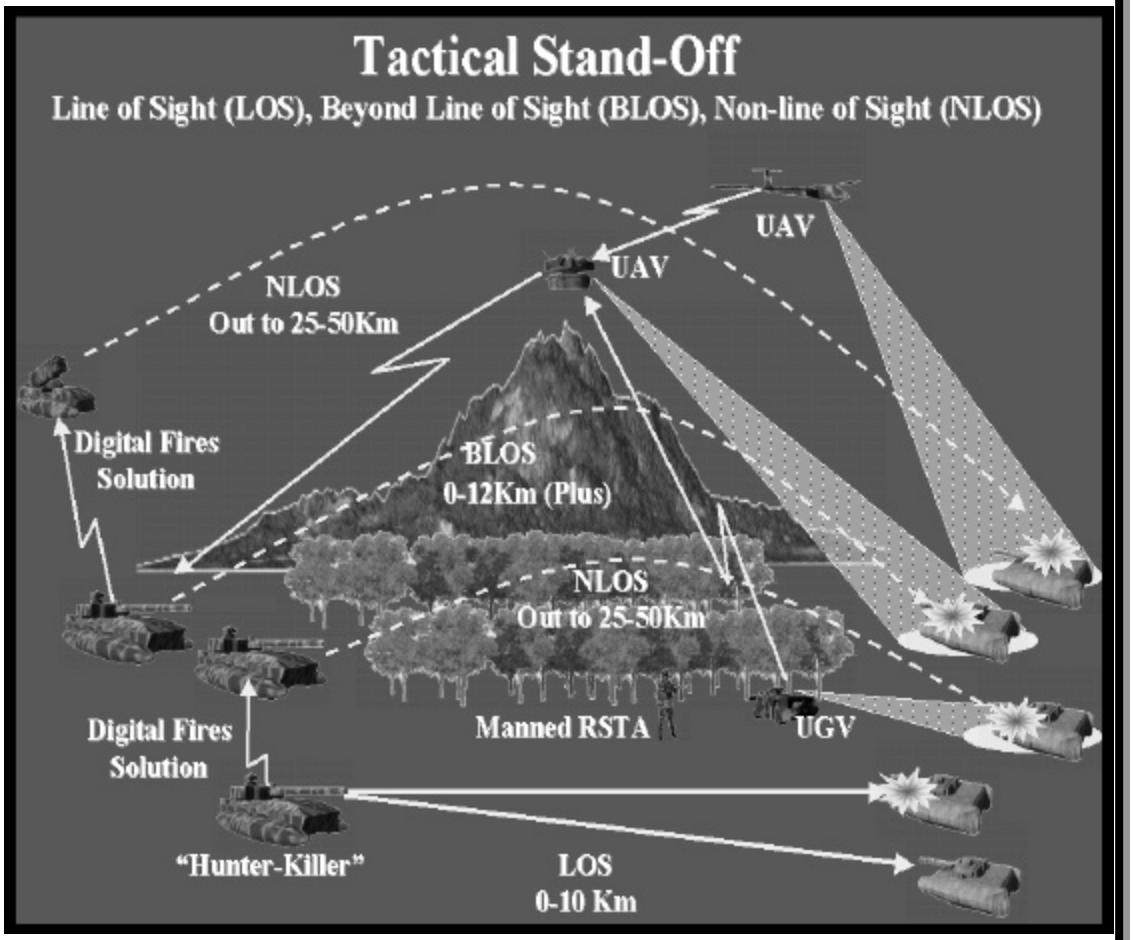


LOS, BLOS, NLOS



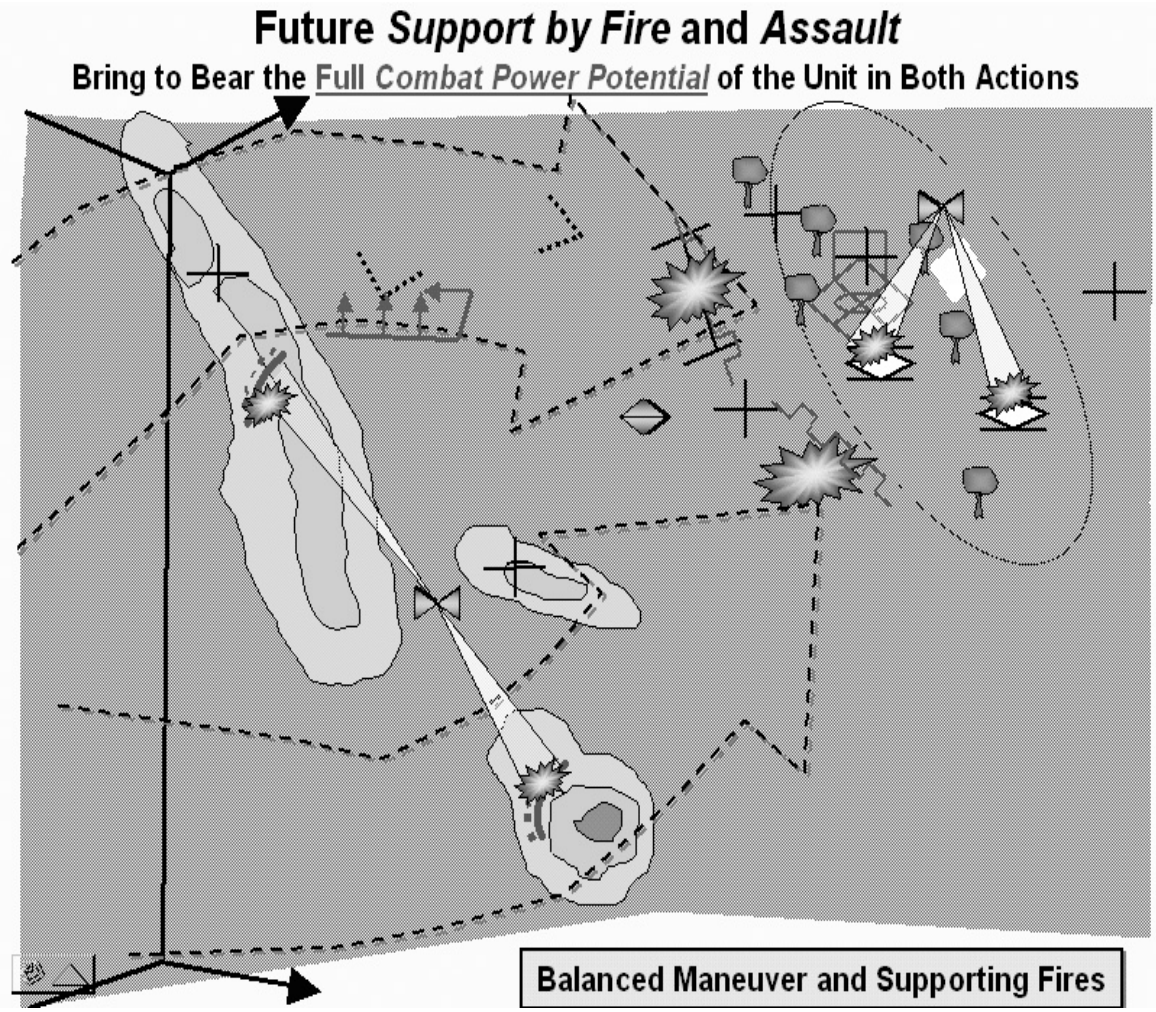
Close Combat – Fight from Tactical Stand-off

- ***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 <u>no single focus for defense, counter action, or protection</u>***



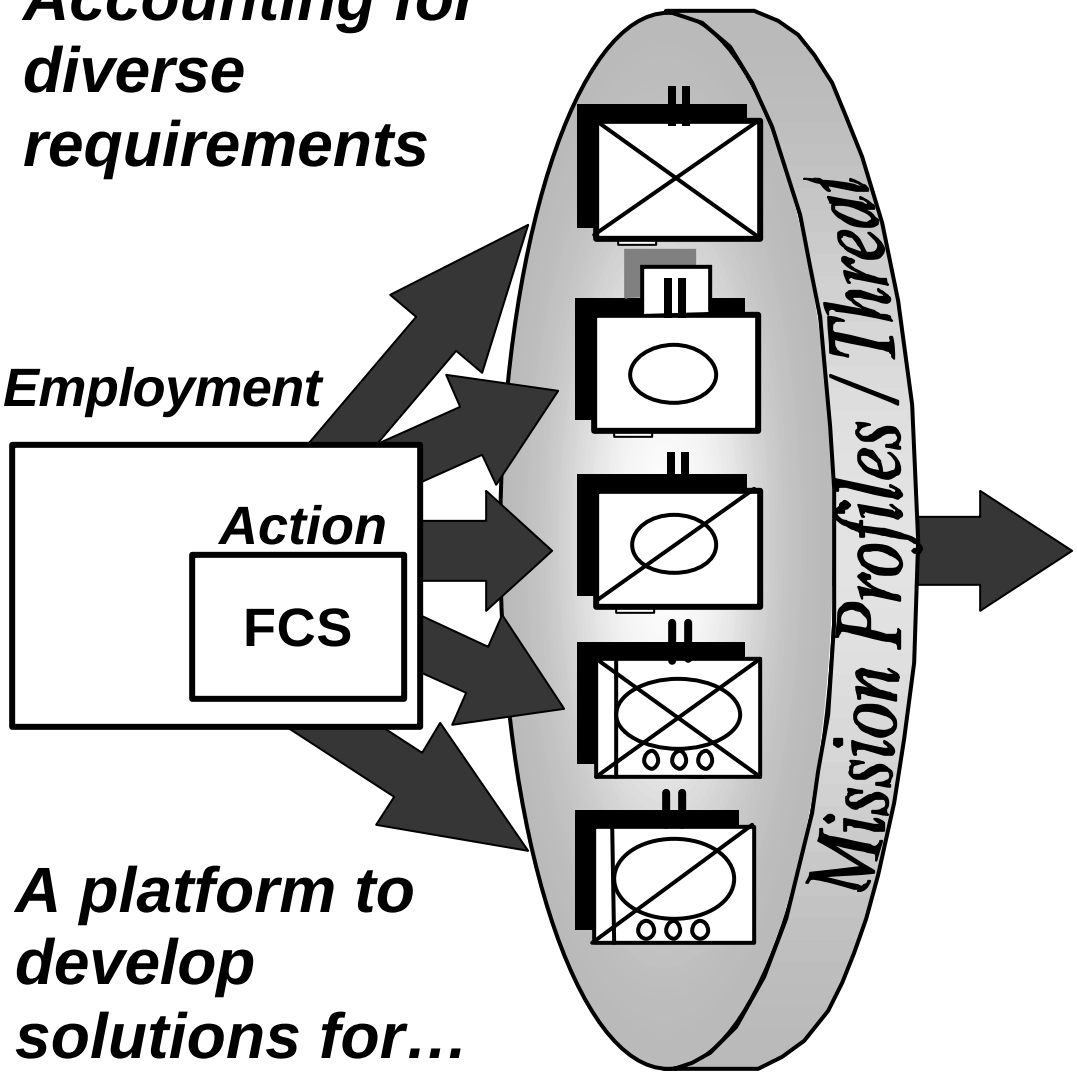
Close Combat – Execute Close Combat Assault

- *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



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***

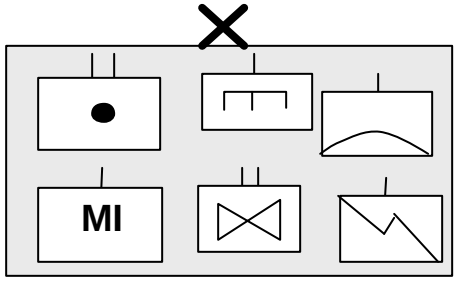
Mission set reflects examples of critical combat tasks across the spectrum of operations for analysis of the Combat Battalion

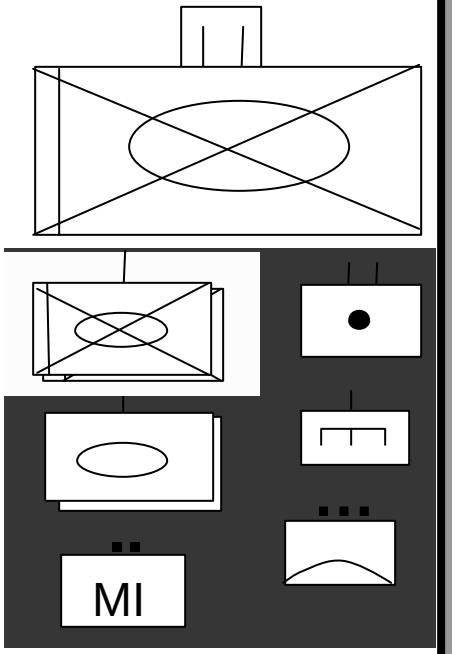
Building Combat Power Today

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

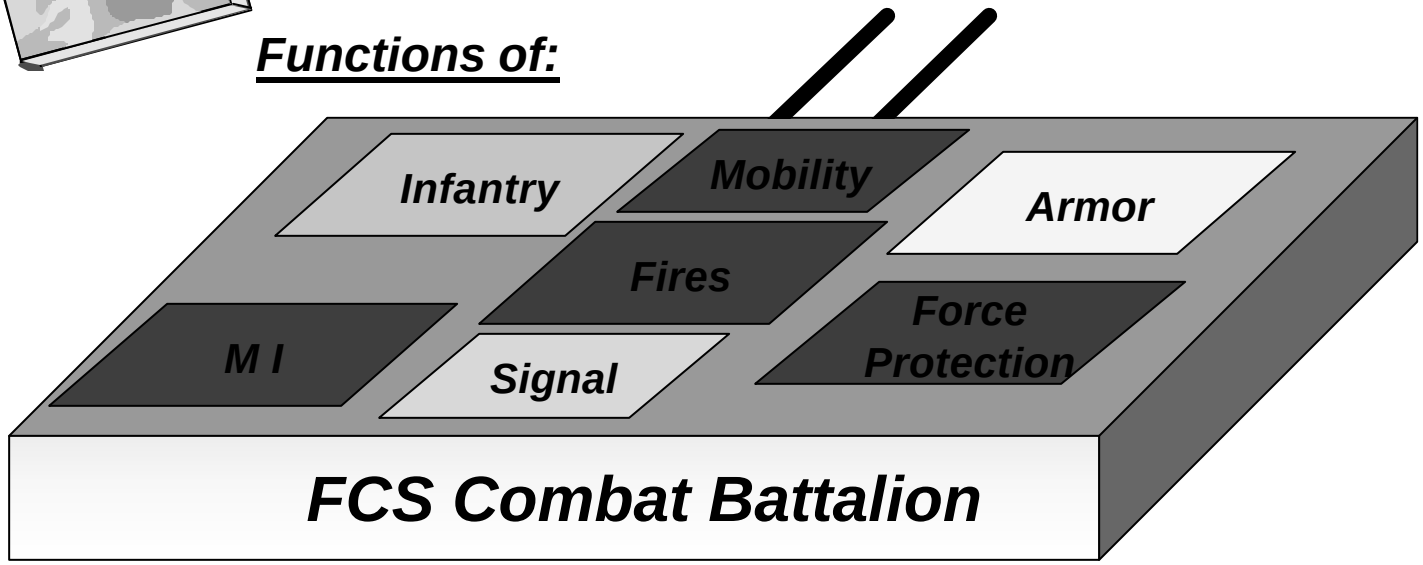
FCS Combat Battalion

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

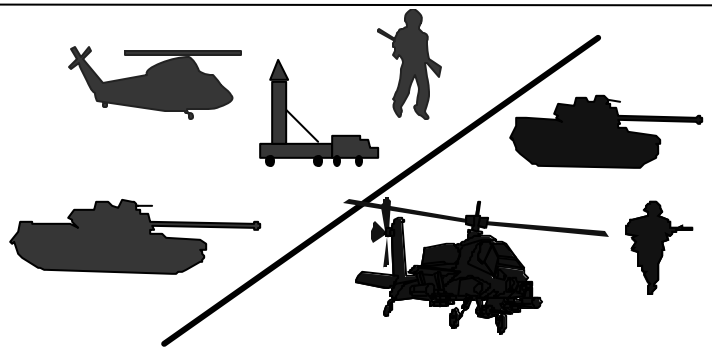
Leadership… the driver for full spectrum capability

See First

The parts, the whole, the environment

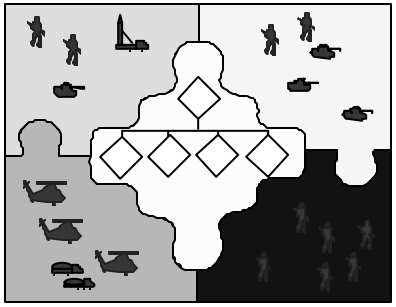
See the parts:

- **Detect**
- **Identify**
- **Track**

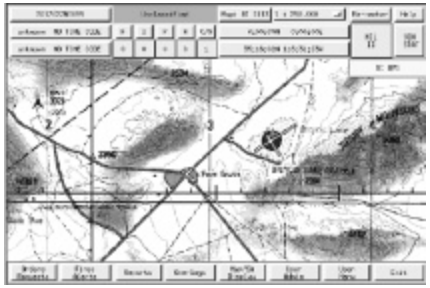


See the Whole (Recognize):

- **Aggregate**
- **Fuse**



See The Environment:



- **Terrain**
- **Weather**
- **Population**

Force enemy to see last

<u>Blind the enemy:</u>

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

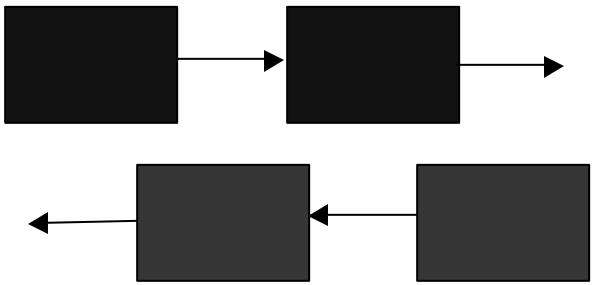
Understand First

The Pattern, the Next Step

<u>Understand</u>: See the Pattern

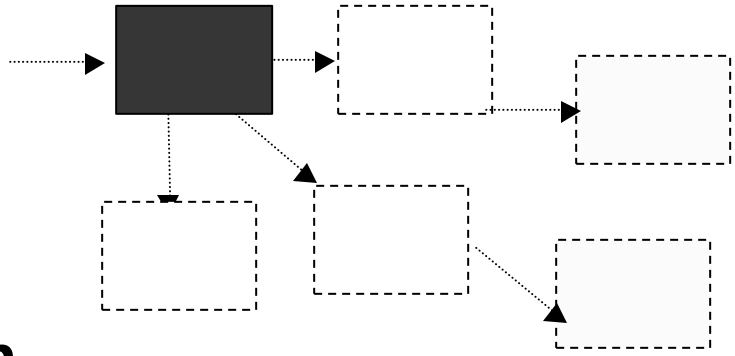
Concept of operations

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



<u>Understand</u>: See the Next step

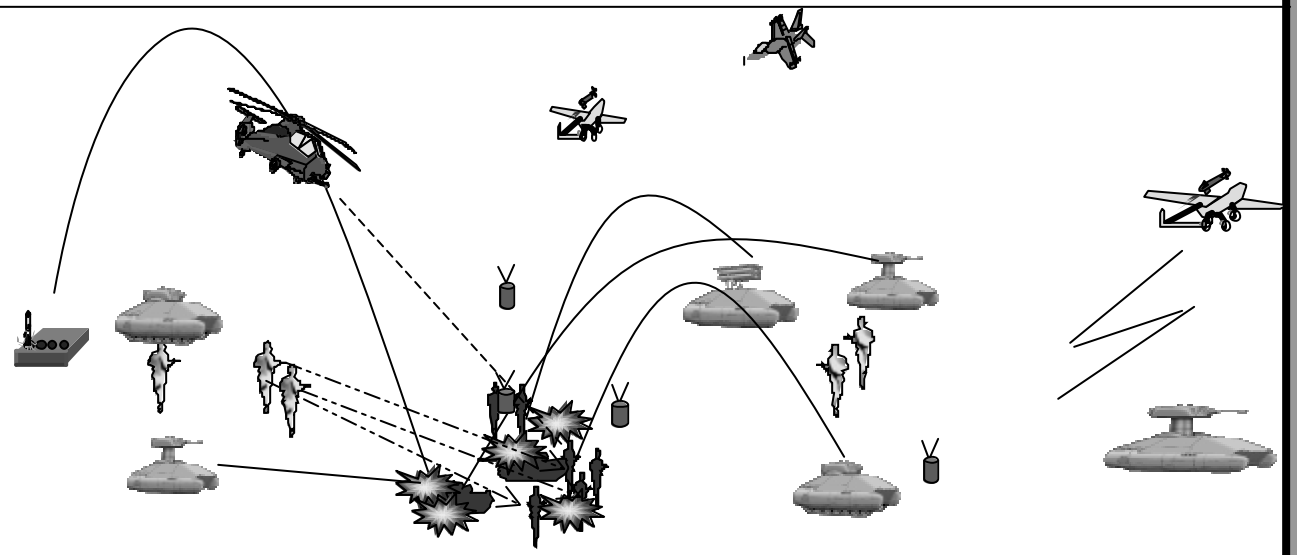
- **Enemy intent**
- **Where enemy will go**
- **ID likely methods**
- **Reaction and counteraction**



Force enemy to understand last

- **Deception**
- **Pattern avoidance**
- **Irregular battlefield geometry**

Act First



Platform:

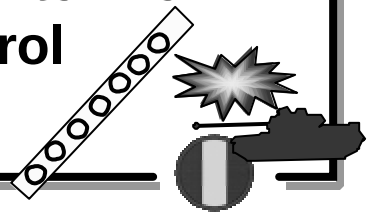
- **Shoot**
- **Move**
- **Reengage**

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**

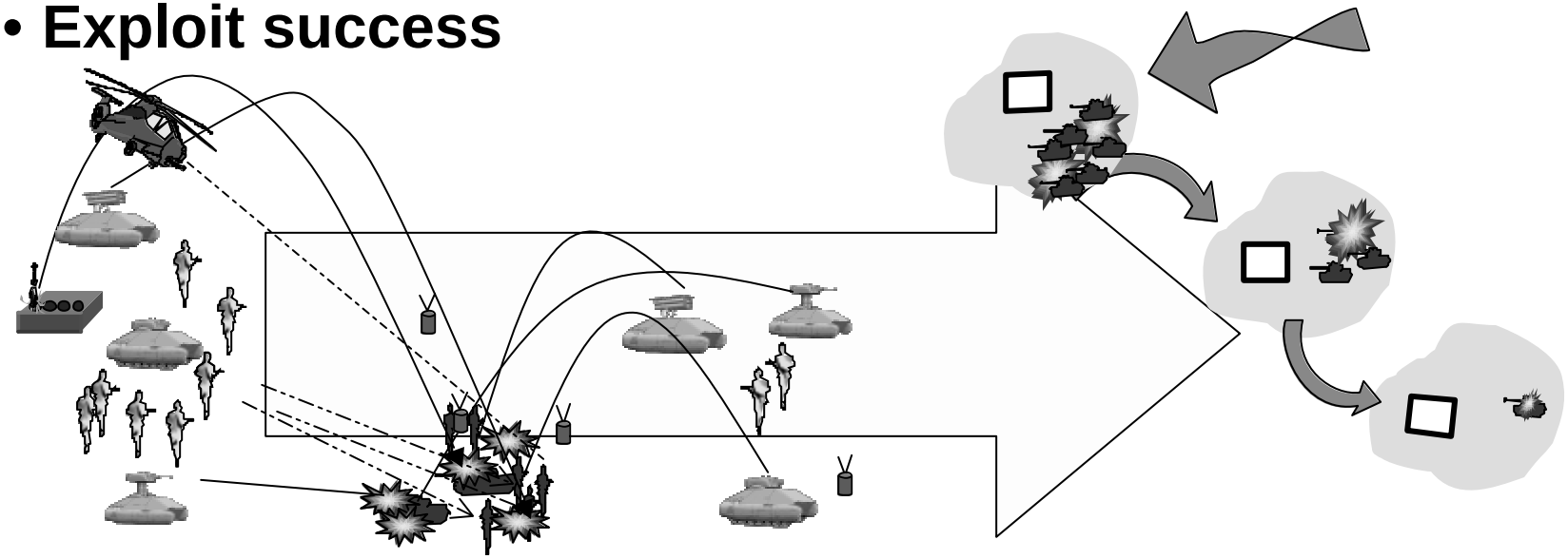
Force enemy to act last or wrong

- **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**



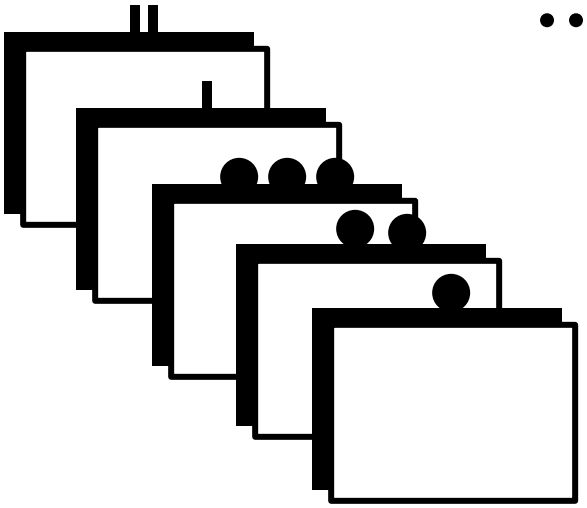
- **Conduct close combat -- transition to assault**
- **Follow through to enemy destruction – exploitation & pursuit**

- **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

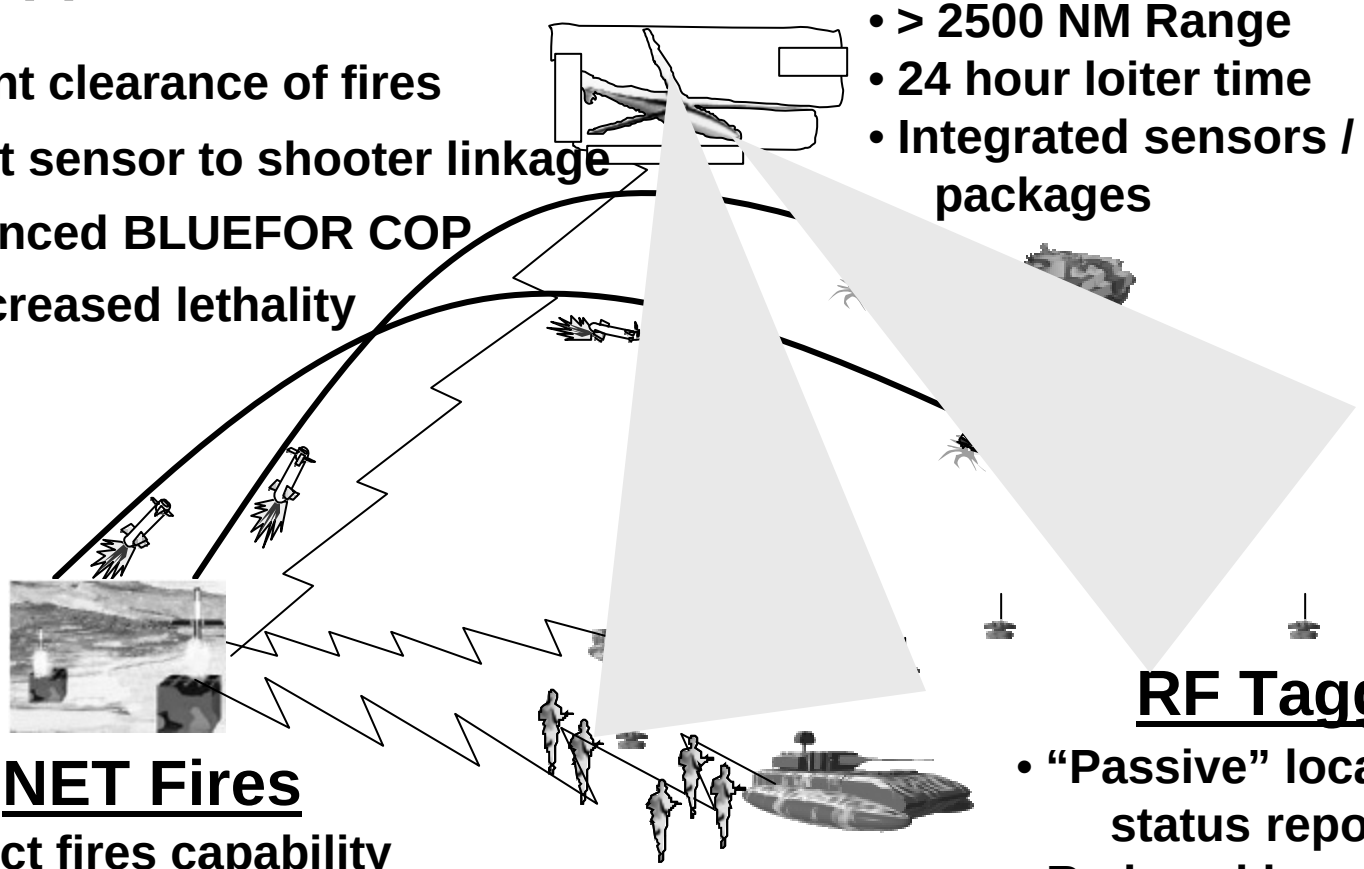
Pursuit of Technology - Lethality

Objective Force NET Fires in Support of Maneuver

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

A160 Robotic Helicopter

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



NET Fires

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

RF Tagging

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

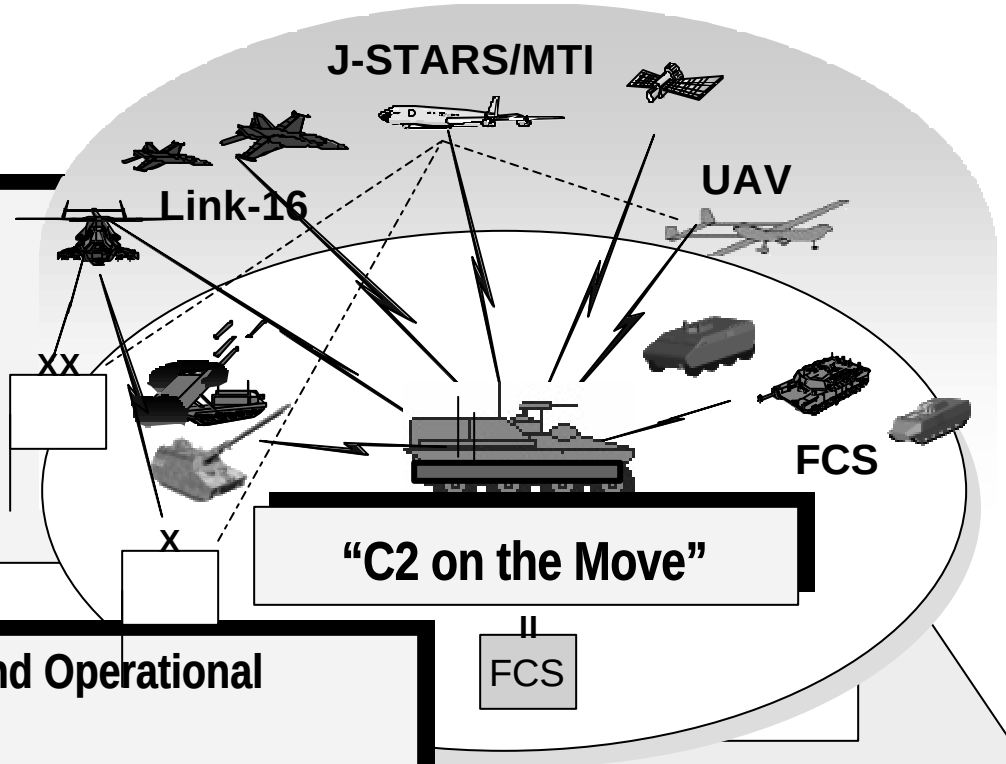
Responsive, accurate fires at tactical standoff.

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:

- **<u>More</u> Than Decision-Making and Targeting – <u>IT'S ABOUT EMPOWERING ORGANIZATIONS THROUGH LEADERSHIP</u>**
- **<u>Not</u> About Knowledge – <u>IT'S ABOUT PROPER OUTCOME ON THE BATTLEFIELD</u>**

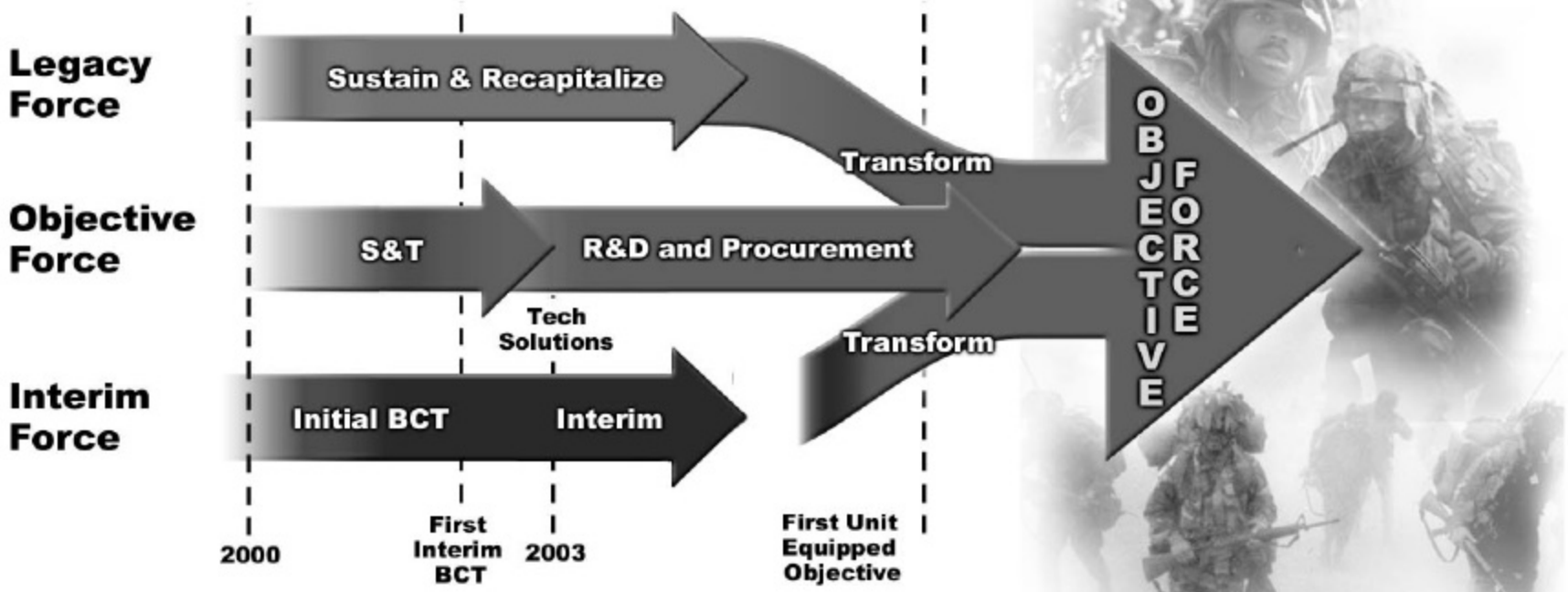
Summary

- **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.