



Lethality, Survivability, Mobility and
Sustainment for America's Army



MINES, COUNTERMINE AND DEMOLITIONS

In Support of Army's Transformation

Briefing for

NDIA Firepower Conference

BRIEFER:

Colonel Bud Irish

Project Manger for Mines,
Countermine and Demolitions

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20 June 2001

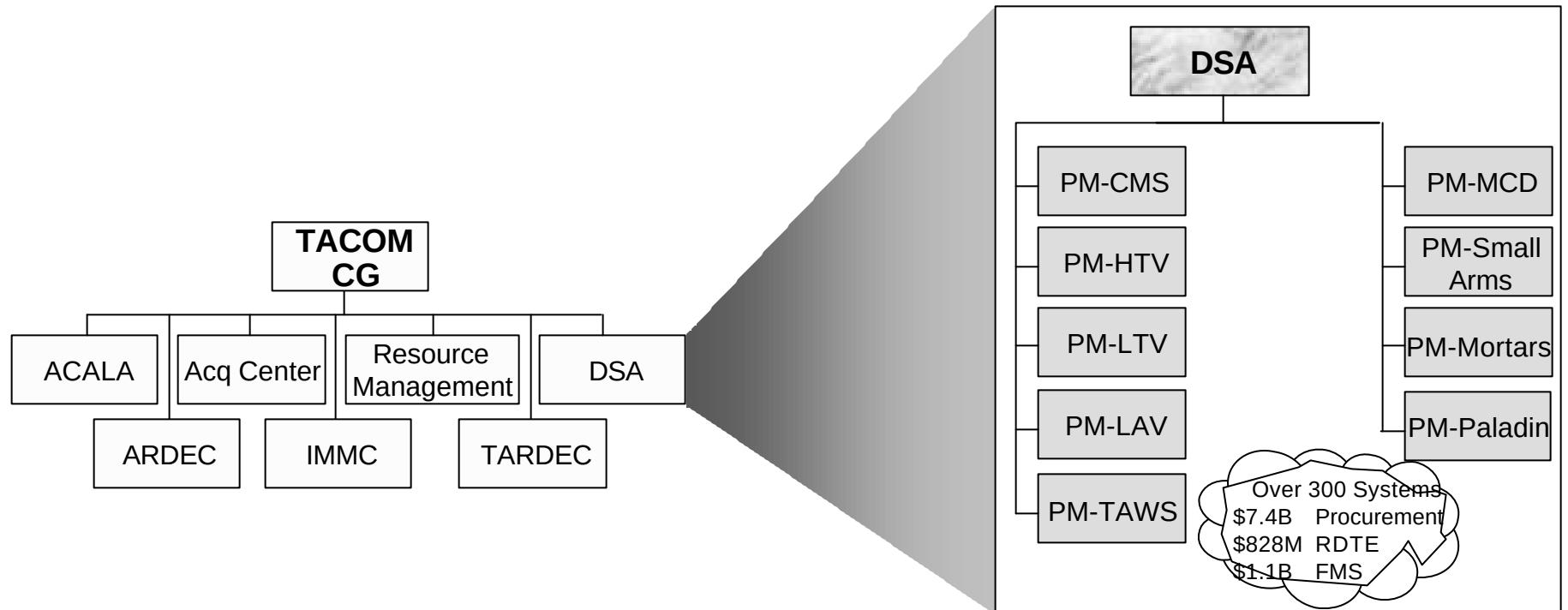
**The Oldest PM Office
Established 1961**

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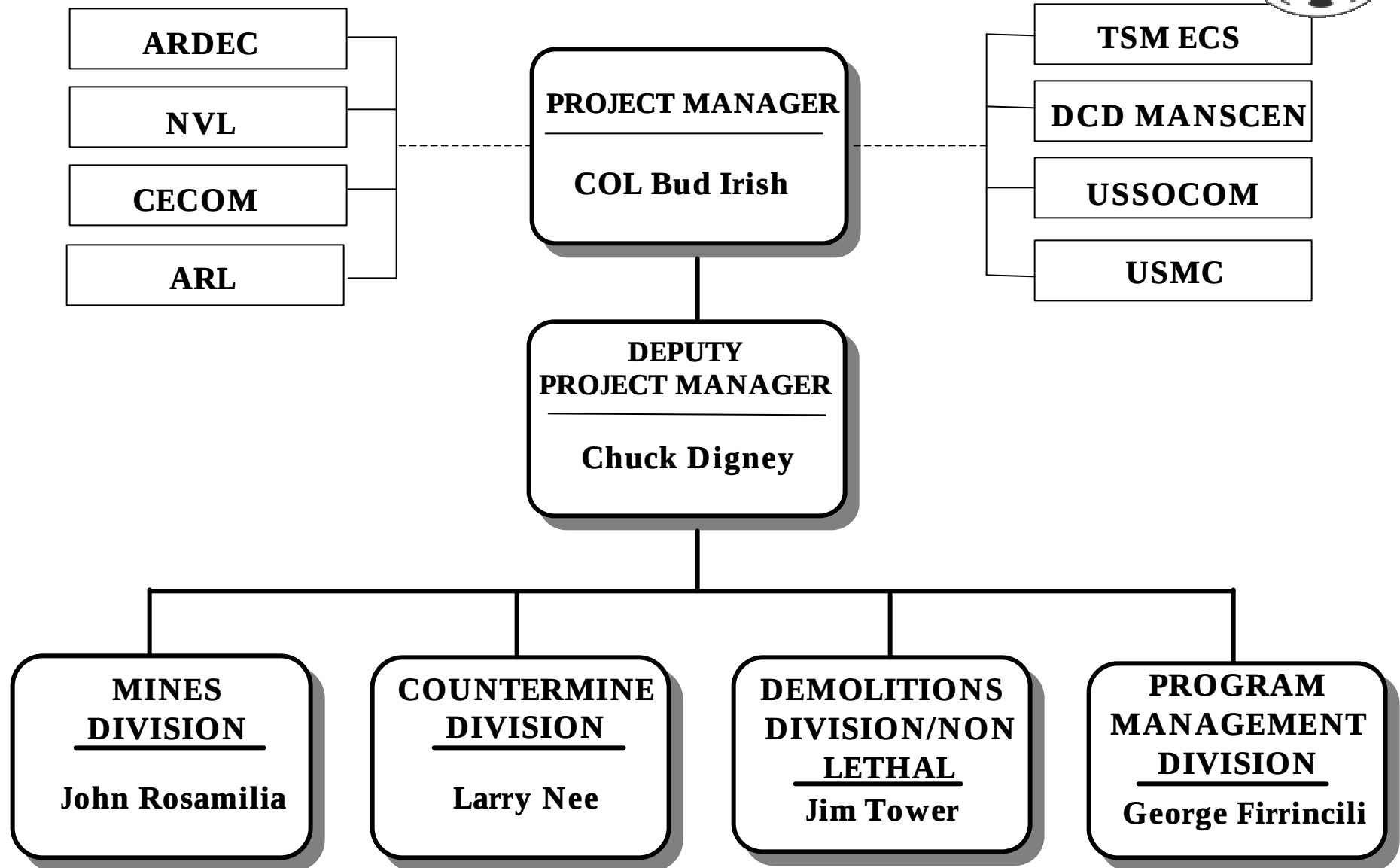


Where We Fit in the Tank-automotive & Armaments Command (TACOM)



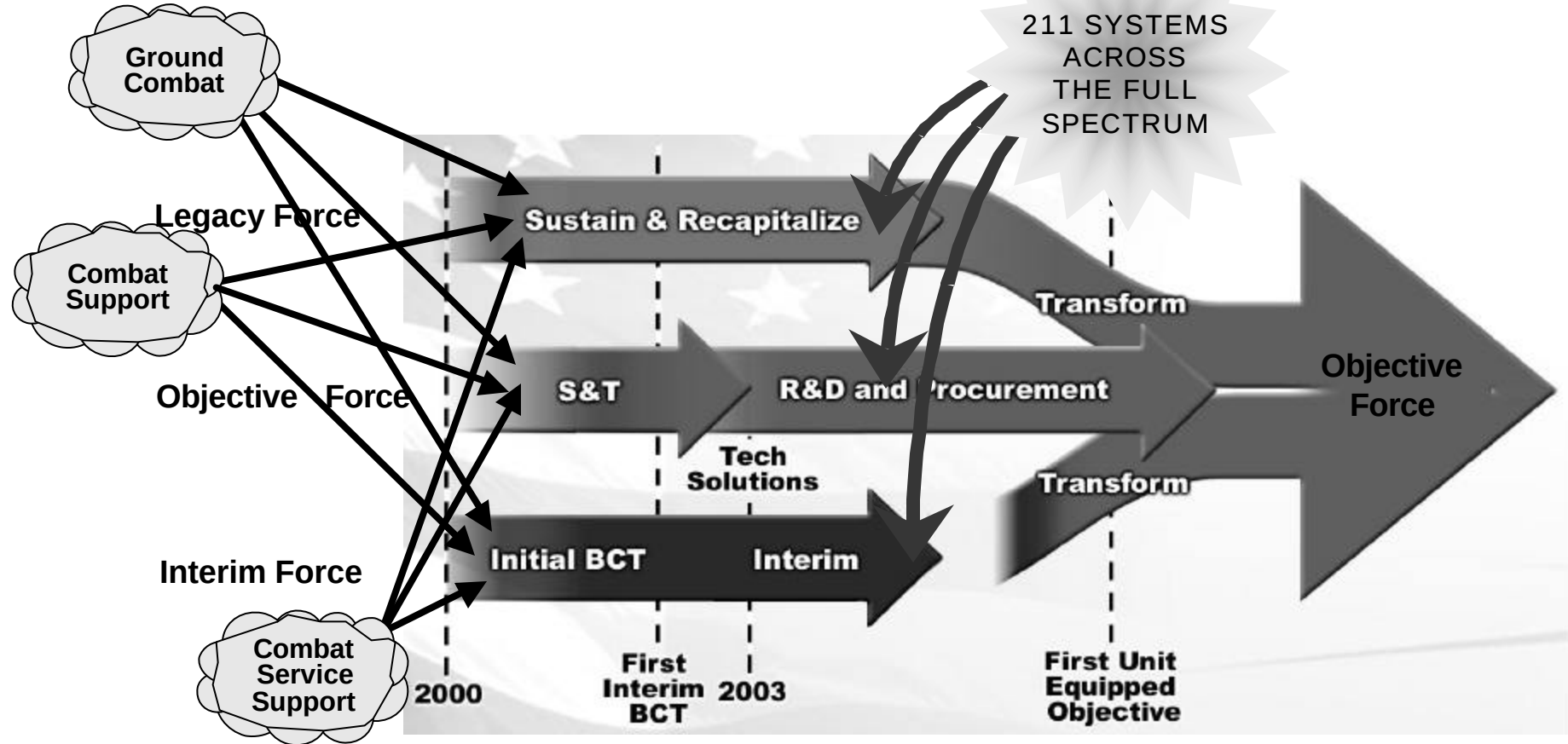


Organization



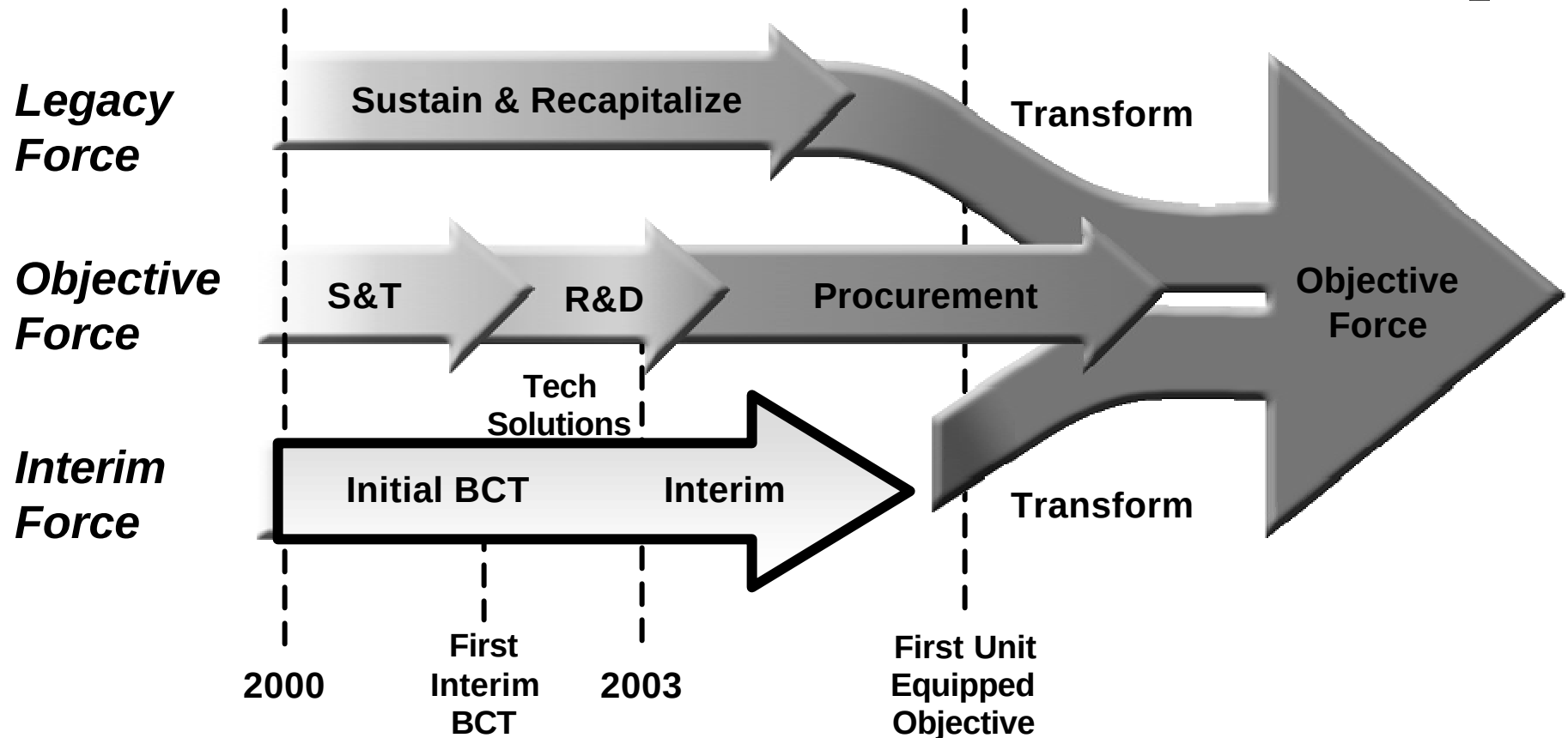


TACOM Operates at the Heart of Army Transformation





The Army Transformation



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



BCT Engineer Squad Vehicle (ESV)

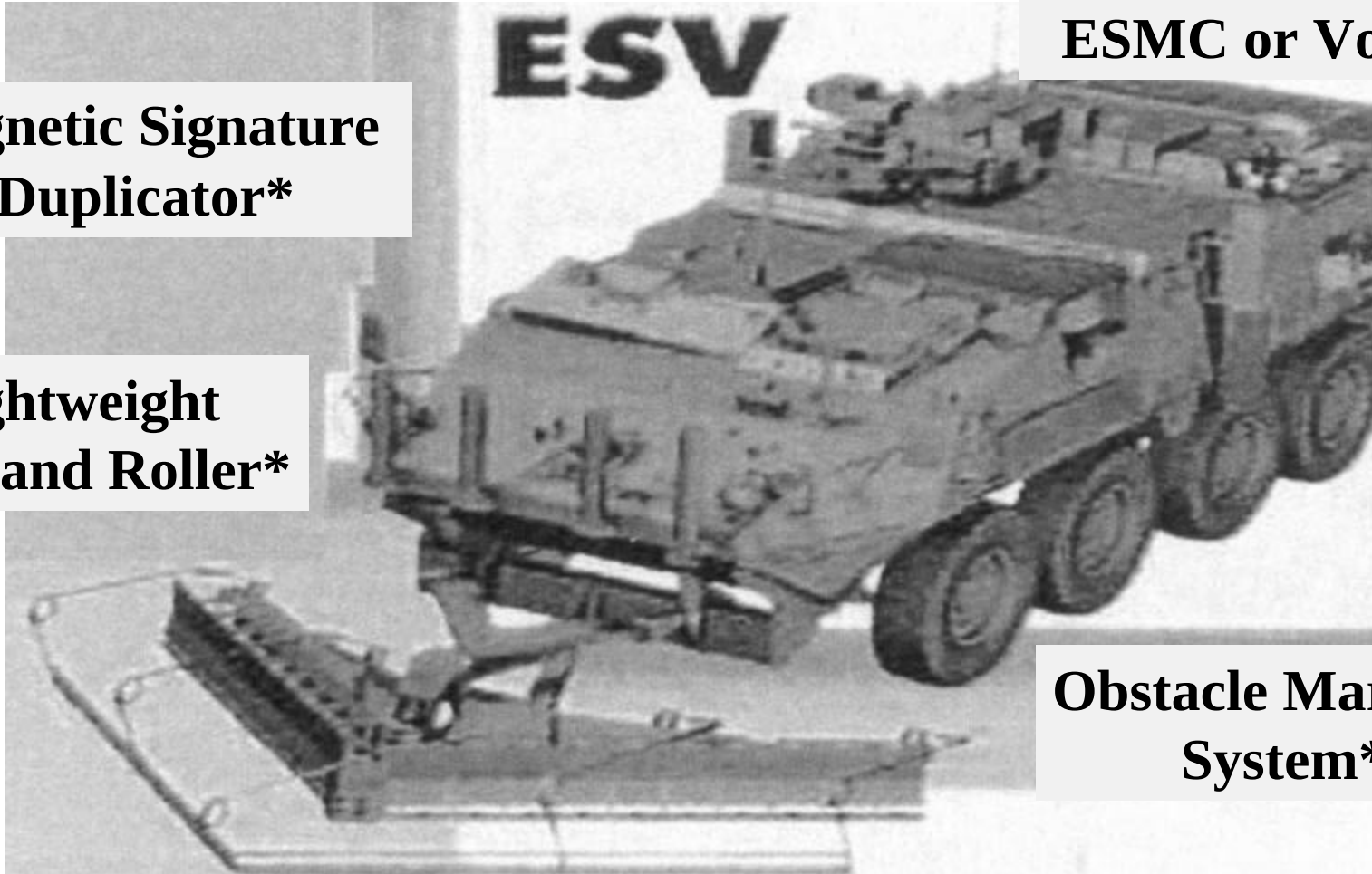


** Included in IAV RFP*

**Towed
ESMC or Volcano**

**Magnetic Signature
Duplicator***

**Lightweight
Plow and Roller***



**Obstacle Marking
System***

9-Hornets, 2-APOBS, 8 SLAMS, 3-PSS-12/HSTAMIDS



Explosive Standoff Minefield Clearer (ESMC)



95% effective in clearing a lane

BCT FUE 2QFY05



Defeats all approved Threat AT
mines

Variants
BCT 70 x 3.3 m
Legacy 100 x 4.3 m



VOLCANO

(Warfighting Capability for BCT)



- Mounts on M200A1 trailer
- 2 - 40 port racks
- 40 M87A1 Canisters Per Rack/
6 Anti-Tank Mines Per Canister
- Maximum of 480 Mines Per
Mission





Wide Area Muniton (Hornet)



- One Man Portable - 35 lbs. Max.
- 100M /360° Effective Radius
- Autonomous Arm to Kill Sequence
- Target Prioritization, Heavy & Light Track
- Remote Control - M71 RCU
- 30 Day Operational Life
- Supports Early Entry Entry Operations
- 82nd ABN DIV

Advanced Hornet

- Two-way commo - 3 km
- Dual Mode Airborne sensor
- Minefield mapping
- Redeployability



Non-Lethal Capabilities Set (NLCS)



- ***Versatile Package of COTS, GSA & NDI Items As Well As New & Innovative Technologies***
- ***CINC Requested & DA Directed Program to Procure & Field 10 Sets in FY00 & 01***
 - *Urgently Fielded First Set to Kosovo on 18 April 00*
 - *Four Additional Sets Crane*
 - *Requirement Is for 30 - 90 Sets*
 - *Funded for < 30 Sets in POM*

DESCRIPTION

50+ types of items, 5 categories:

- 1 - Individual Protective Equip.**
- 2 - Munitions**
- 3 - Individual Enhancement**
- 4 - Mission Enhancement**
- 5 - Training Devices**





SELECTABLE LIGHTWEIGHT ATTACK MUNITION (SLAM)



- 2.2 LBS - EFP WARHEAD
- BETTER PERFORMANCE THAN FASCAM
- MAGNETIC BOTTOM ATTACK
- PASSIVE INFRARED SIDE ATTACK
- TIME DEMOLITION, COMMAND DETONATION, SELF DESTRUCT



Anti-Personnel Obstacle Breaching System

(APOBS)



Certified insensitive
munition

In production

Set-up ≤ 2 Min
35M stand-off

Two man
portable



IOC Jun 02

Complex obstacle breacher
.6-2M x 45 M path



Handheld Standoff Minefield Detection System (HSTAMIDS)



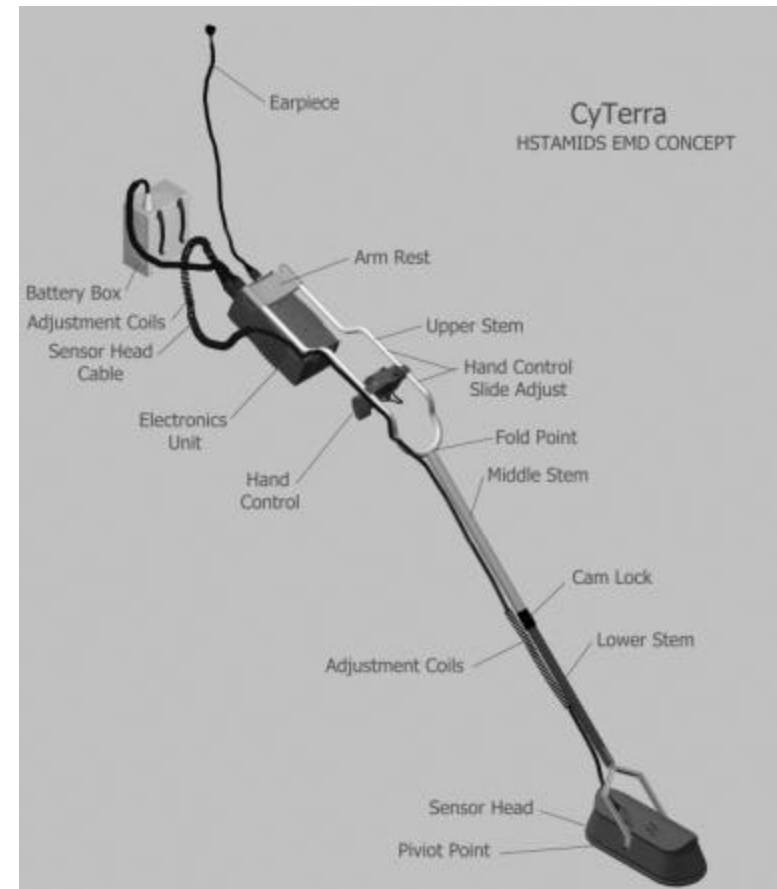
FUE 4QFY04

Light weight 7-8 lbs

High detection/ Low false alarm rates



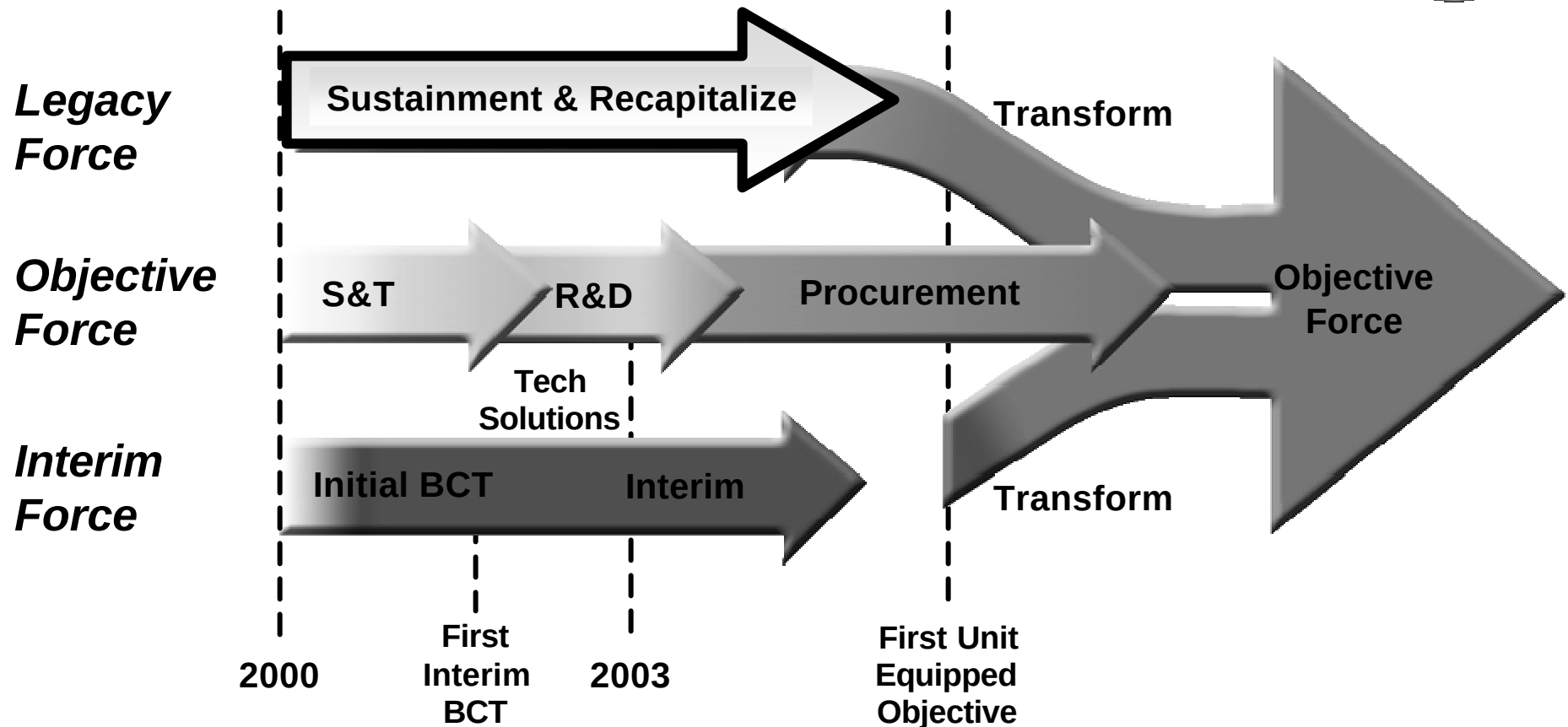
Locates mine within .15m



Integration efforts with Land Warrior



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Non Self-Destruct Alternative (NSD-A)

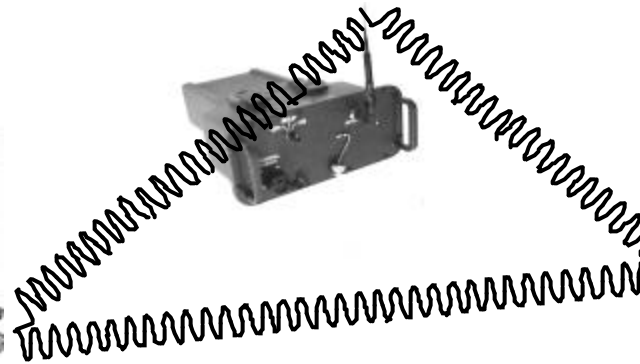


- Discriminates (MITL)
- Replaces M14/M16

**REPEATER BOOSTS
RF COMMO LINK RANGE**



**SOLDIER
CONTROLLER
WITH APLA
RADIO**



**RF
COMMO
LINK
(UP TO
1KM)**



**INTRUSION-
SENSING
CONTROL
UNITS - ICUs**



FIGHTING POSITION EXCAVATOR (FPE)



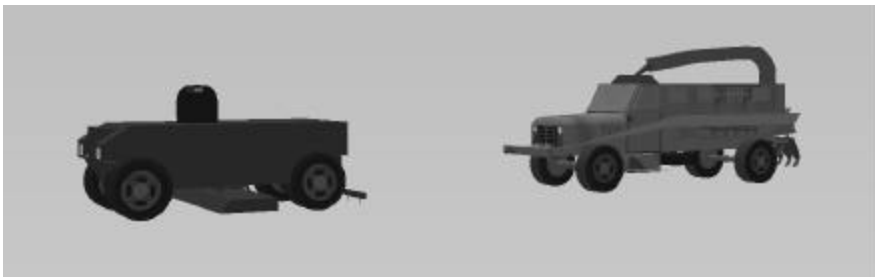
Reduces
time to
prepare
fighting
position
from fives
hours to as
little as one
hour



Ground Standoff Minefield Detection System (GSTAMIDS)

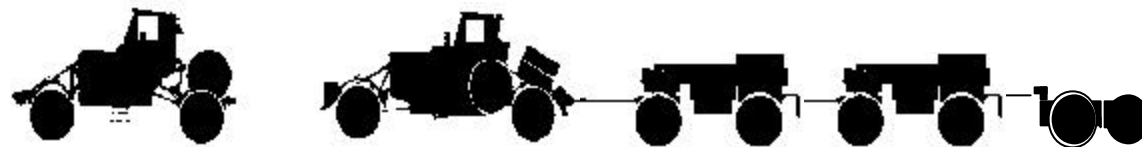
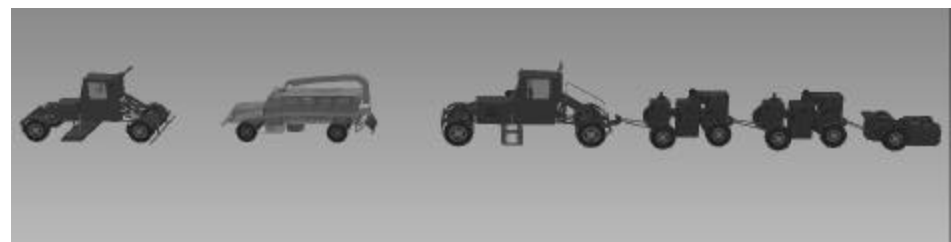


Forward looking detection.
Standoff neutralization.
Fits on most vehicles.



Improved detection platform.
Explosives confirmation.
Improved neutralizer.

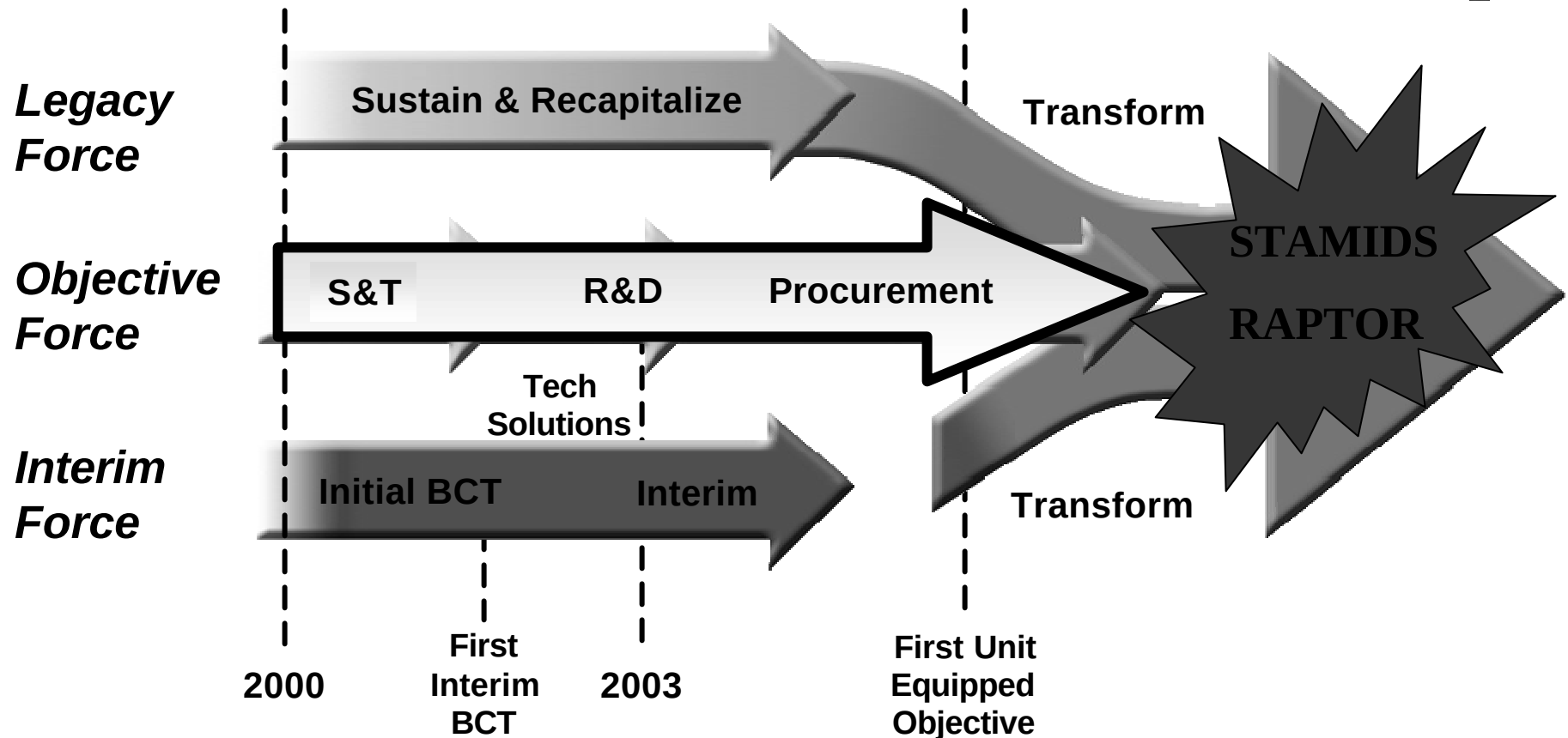
All AT Mine detection.
Mechanical neutralization.
Ten systems.



Metal AT mine detection
Proofing and spares.
Fielded: 1 FLW, 9 SIAD



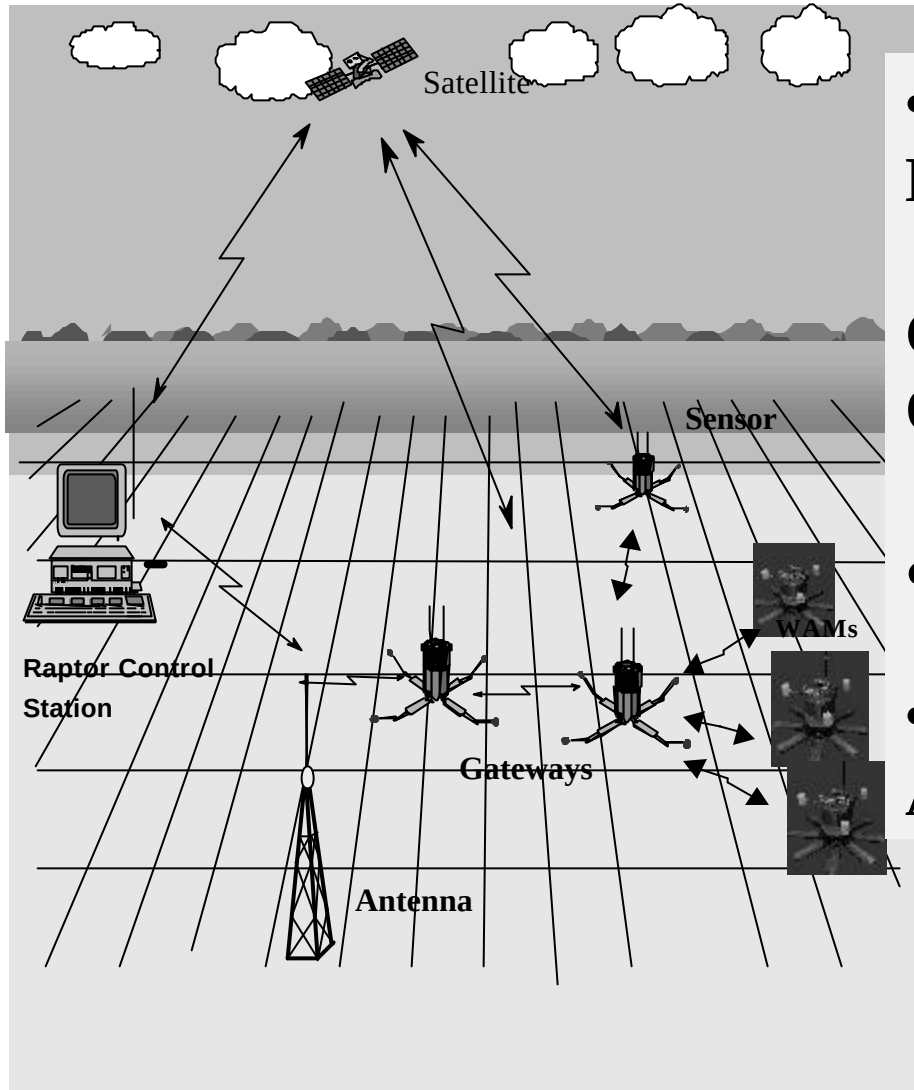
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CORE RAPTOR



- **ENHANCED MINEFIELD EFFECTIVENESS THROUGH:**
 - **COMMUNICATION,**
 - **COMMAND AND CONTROL**
 - **OF ADVANCED HORNET**
 - **COORDINATED ATTACKS**
 - **& TACTICS**
- **INCREASED SITUATIONAL AWARENESS**

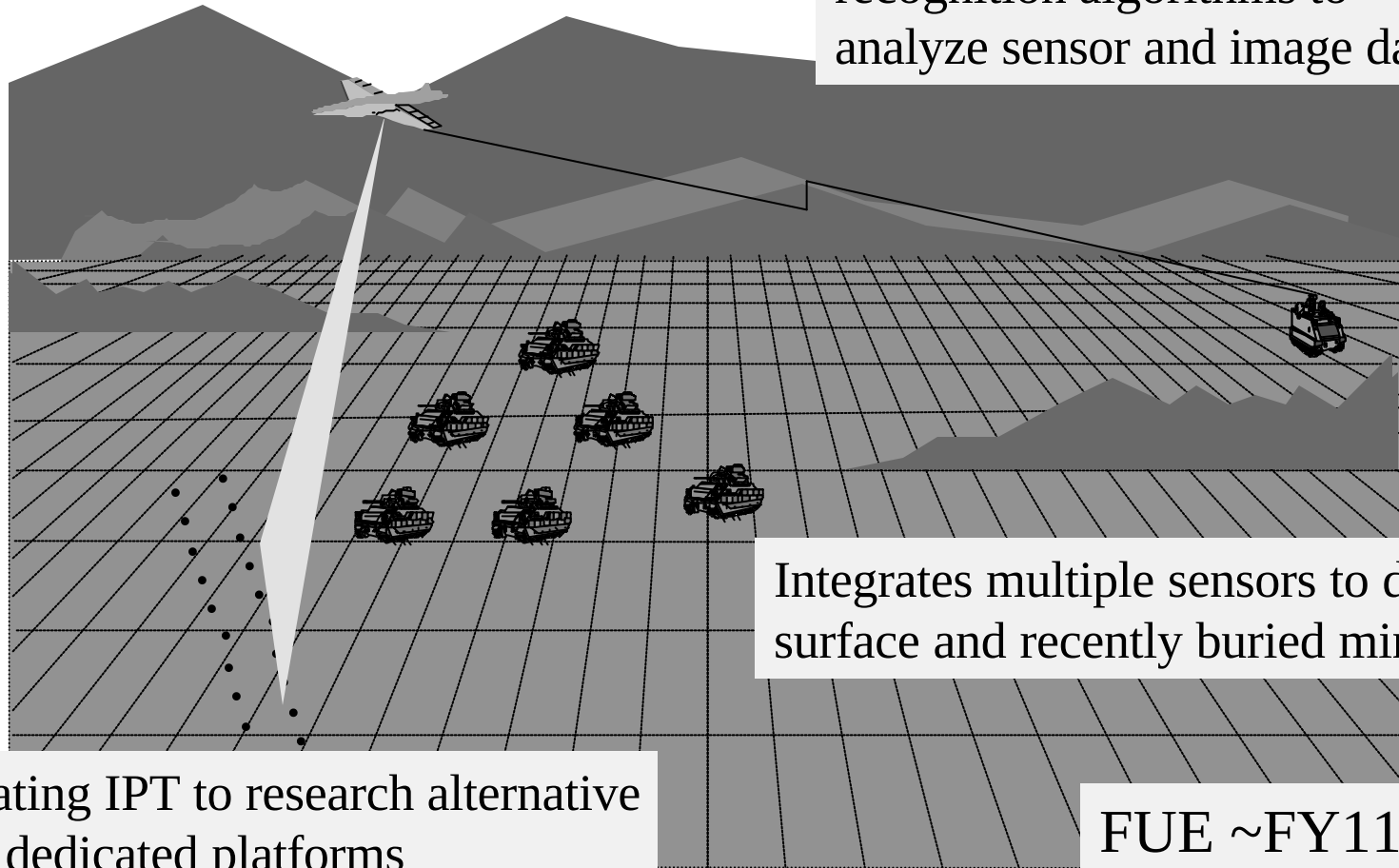


Airborne Standoff Minefield Detection System (ASTAMIDS)



Transition from NVESD
LAMC ATD FY03/04

Employ automatic target
recognition algorithms to
analyze sensor and image data



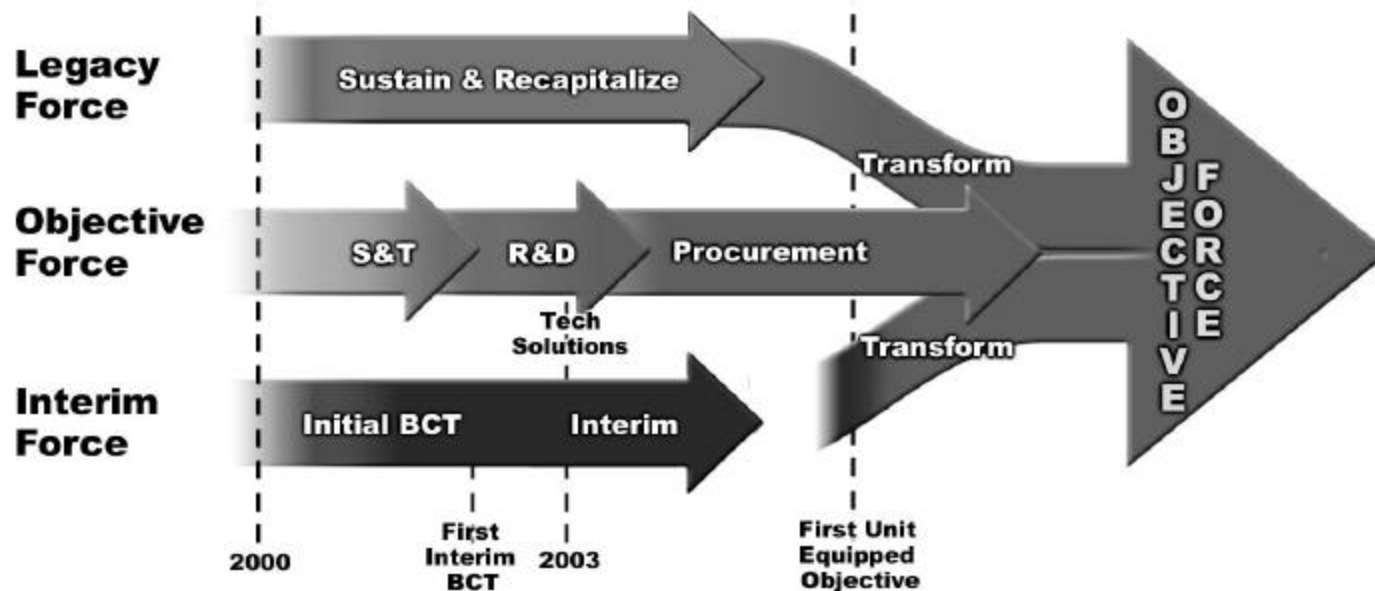
Integrates multiple sensors to detect
surface and recently buried minefields

Initiating IPT to research alternative
and dedicated platforms

FUE ~FY11



PM-MCD Support To The Army Transformation



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