TACOM

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

MINES, COUNTERMINE AND DEMOLITIONS

In Support of Army's Transformation

Briefing for

NDIA Firepower Conference

20 June 2001

BRIEFER:

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Project Manger for Mines, Countermine and Demolitions

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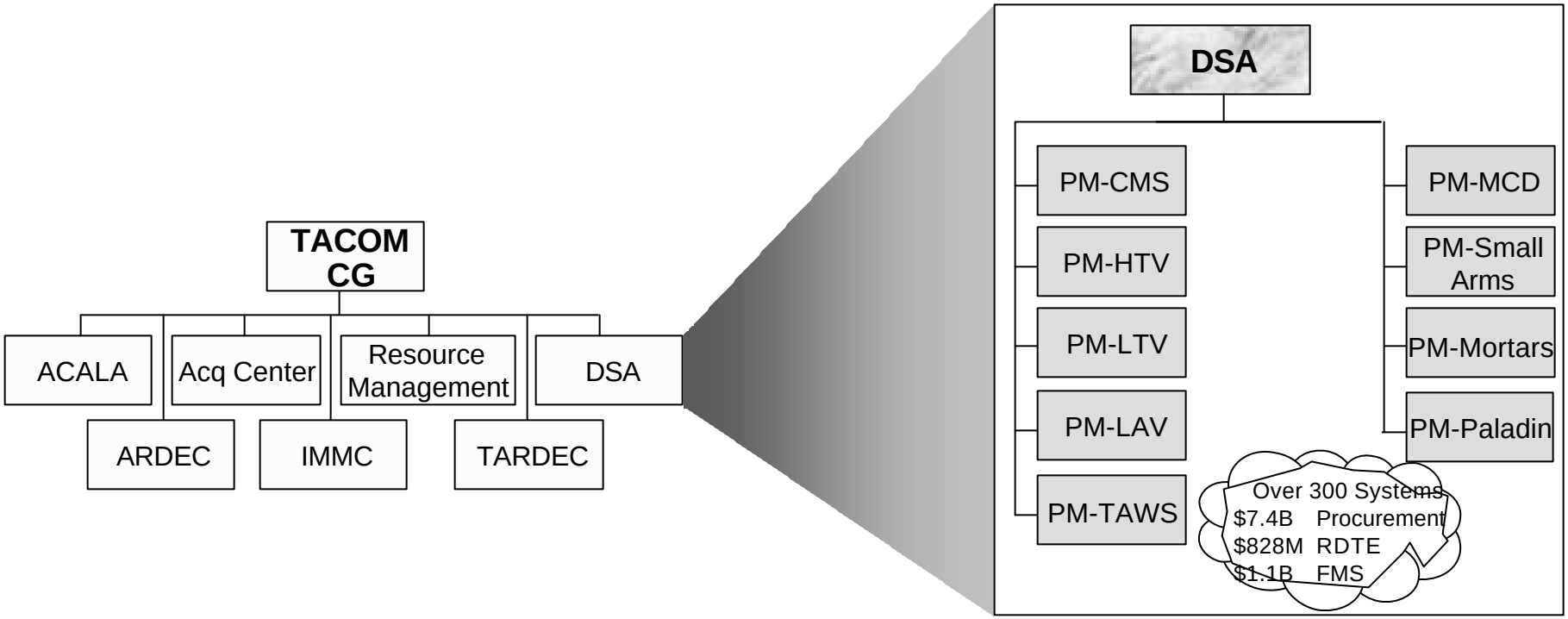
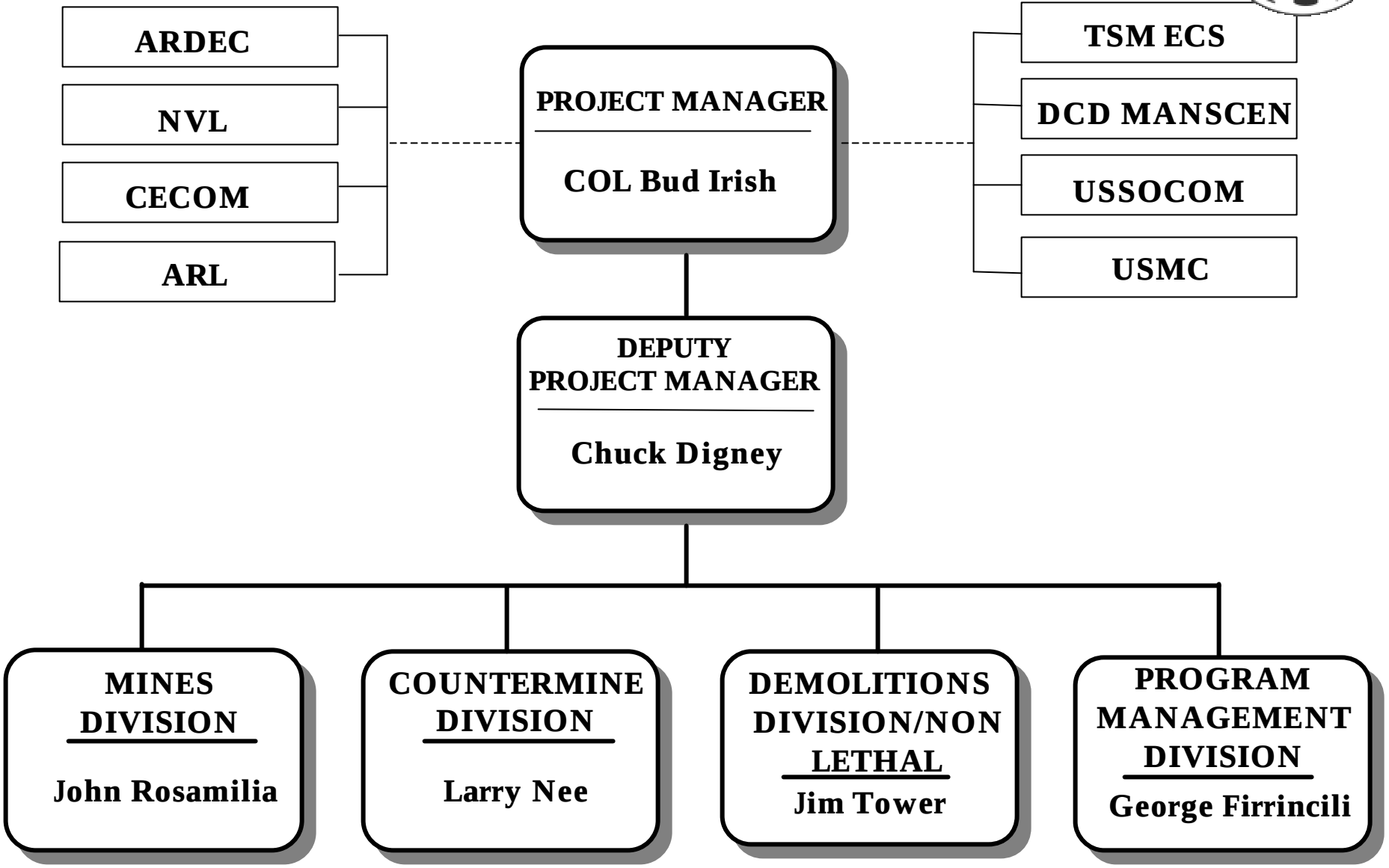
The Oldest PM Office
Established 1961

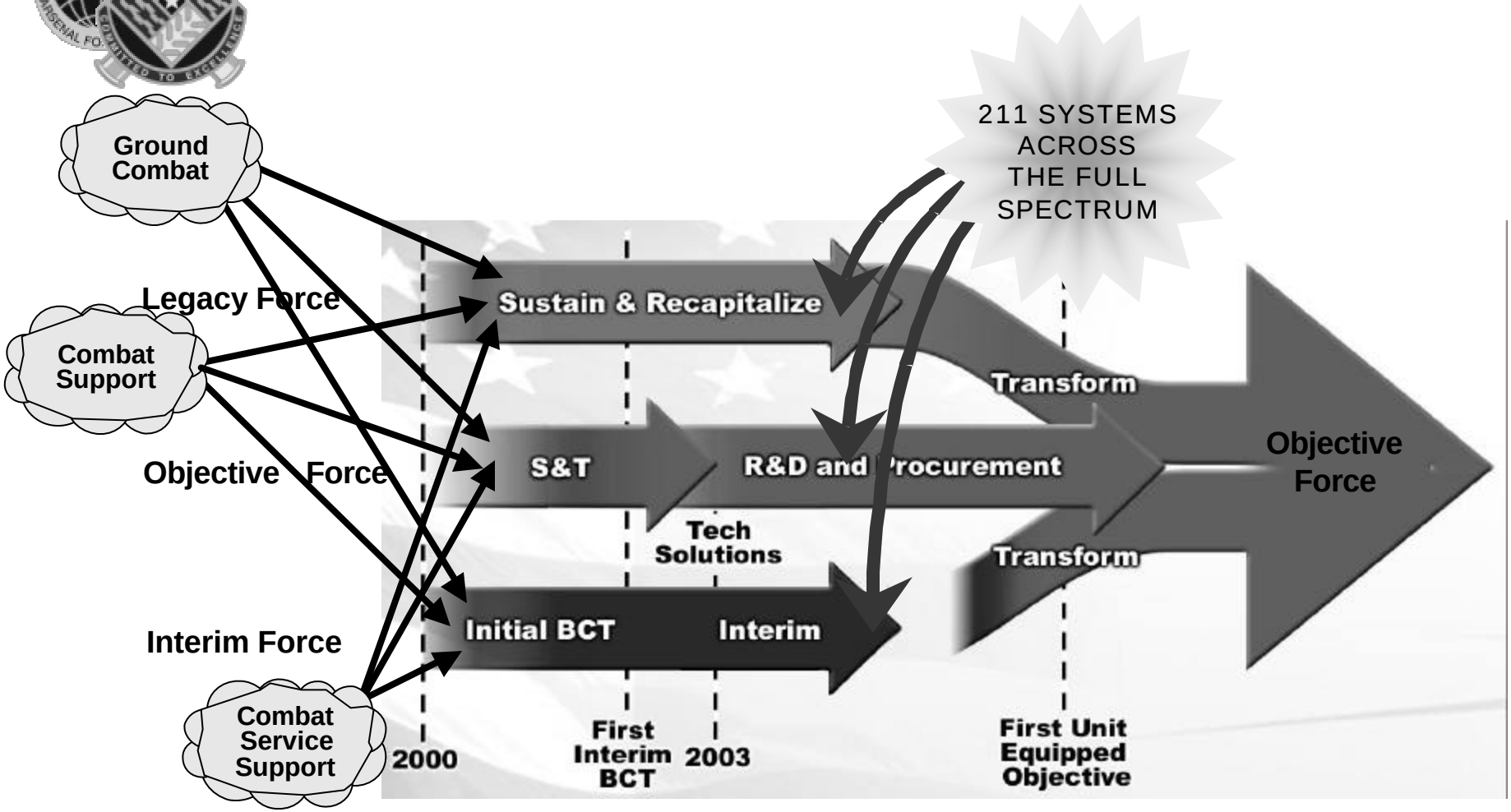
Where We Fit in the Tank-automotive & Armaments Command (TACOM)



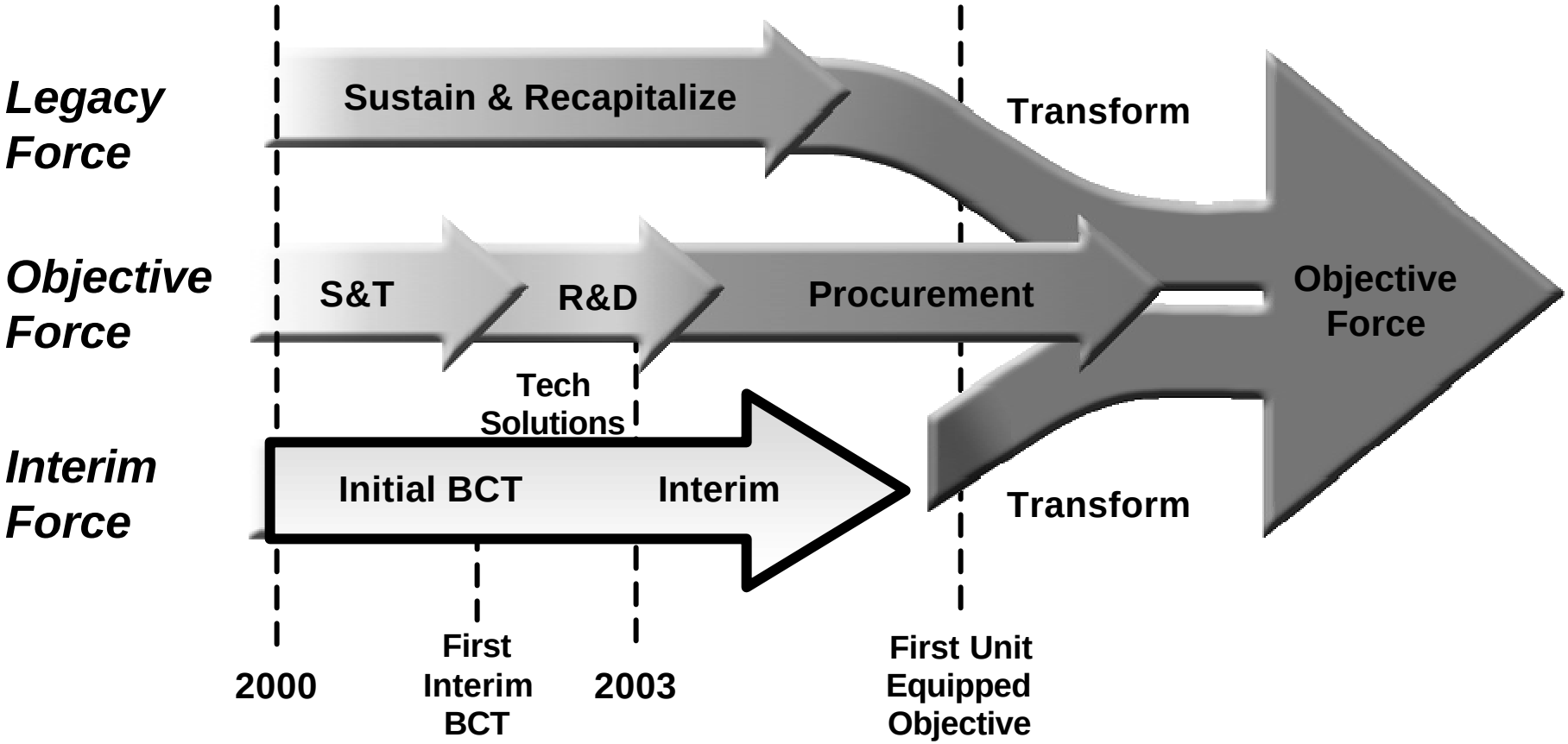
Organization



TACOM Operates at the Heart of Army Transformation



The Army Transformation



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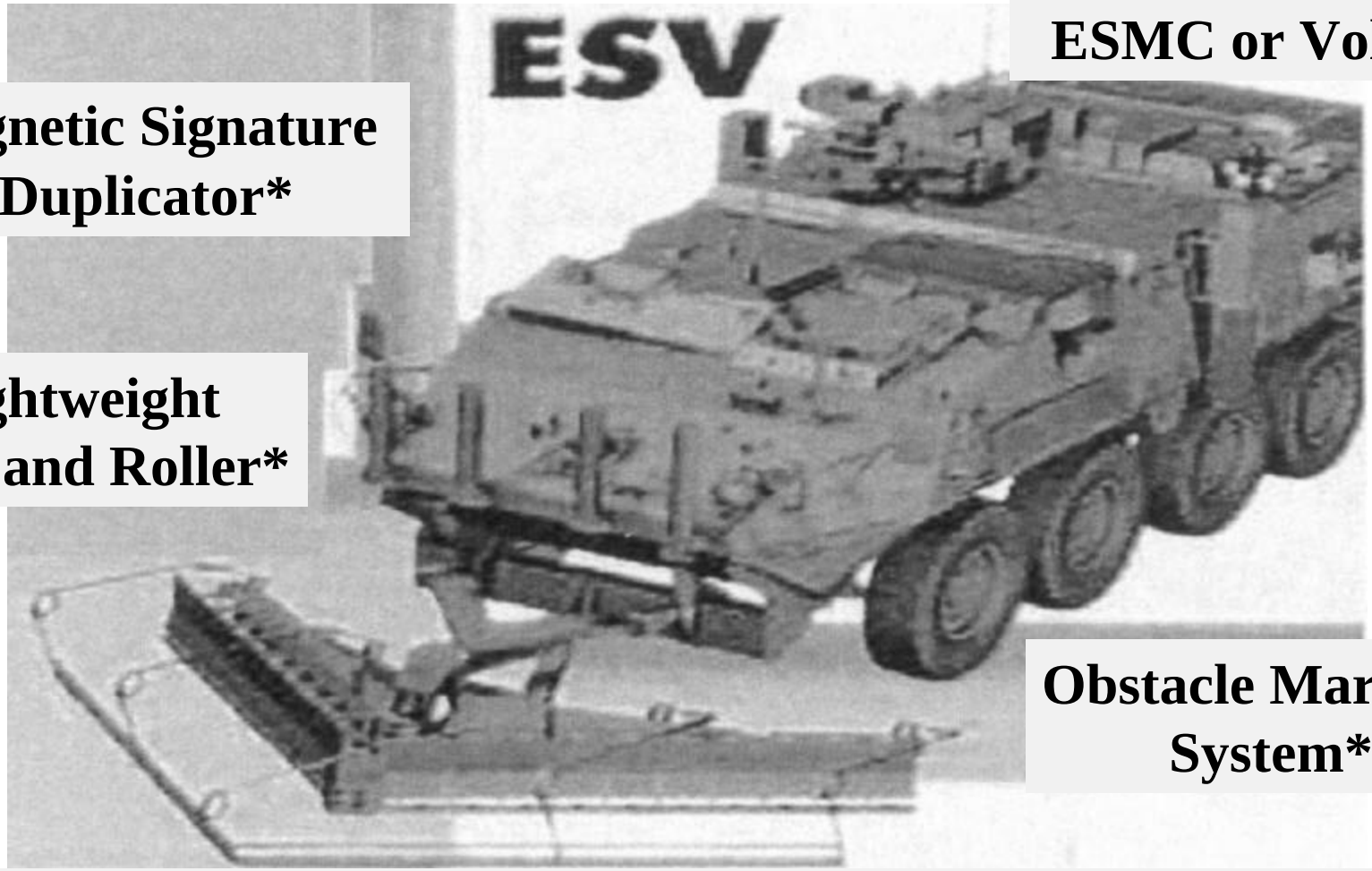
BCT Engineer Squad Vehicle (ESV)

** 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

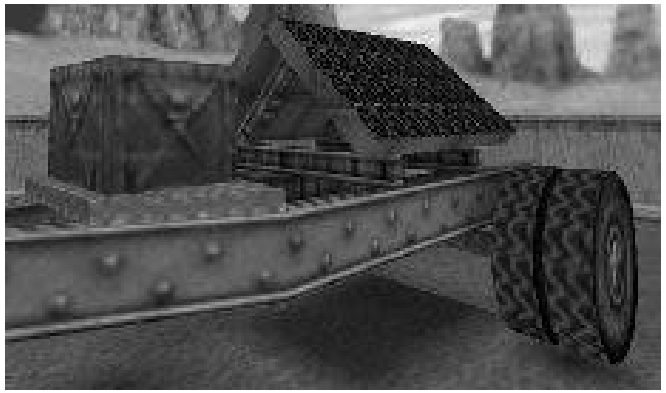
BCT FUE 2QFY05

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 Munition (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)

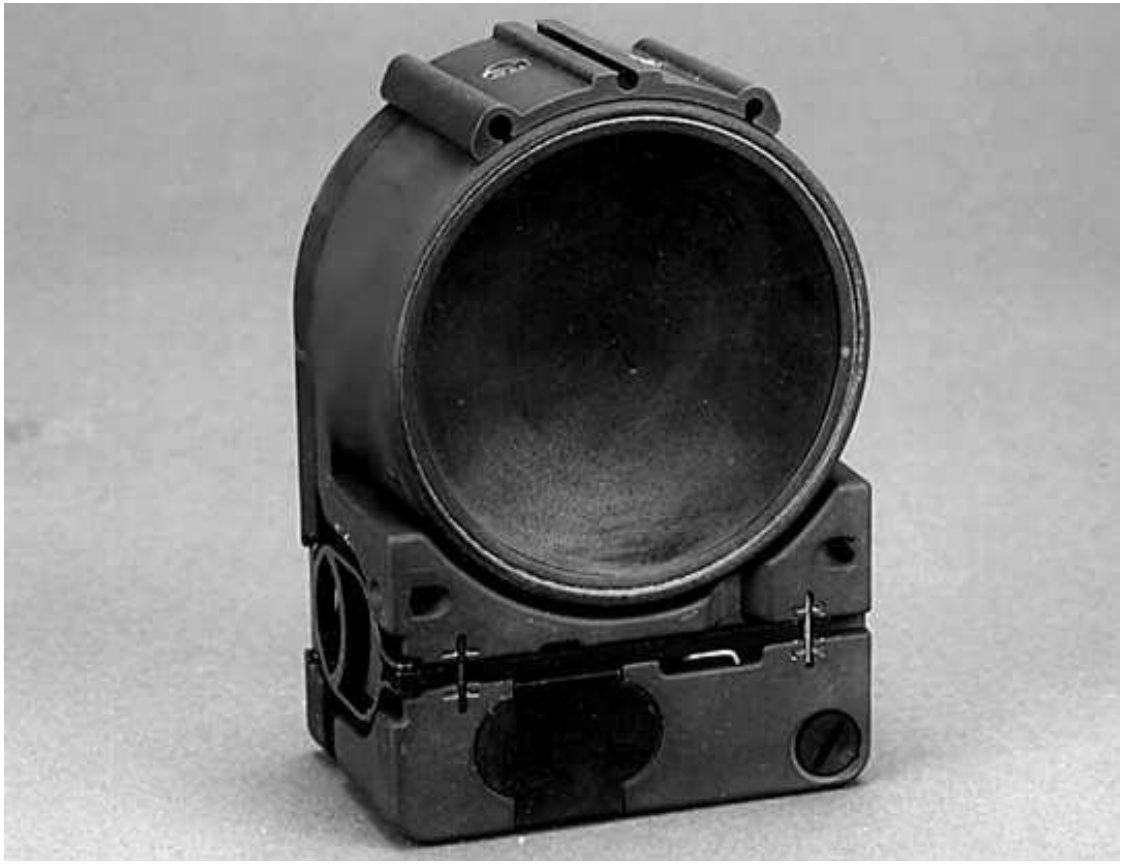
- ***Versatile Package of COTS, GSA & NDI Items As Well As New & Innovative Technologies***
- ***CINC Requested & DA Directed Program to Procure & Field 10 Sets in FY00 & 01***
  - *Urgently Fielded First Set to Kosovo on 18 April 00*
  - *Four Additional Sets Crane*
  - *Requirement Is for 30 - 90 Sets*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

DESCRIPTION

<u>50+ types of items, 5 categories</u>:

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

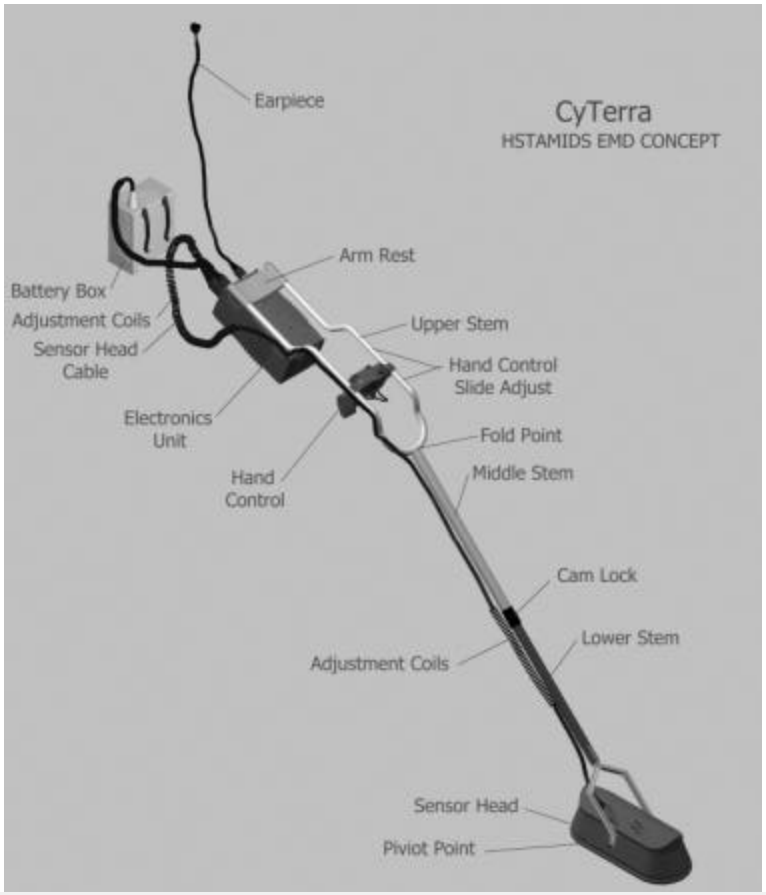
Handheld Standoff Minefield Detection System

(HSTAMIDS)

Light weight 7-8 lbs

FUE 4QFY04

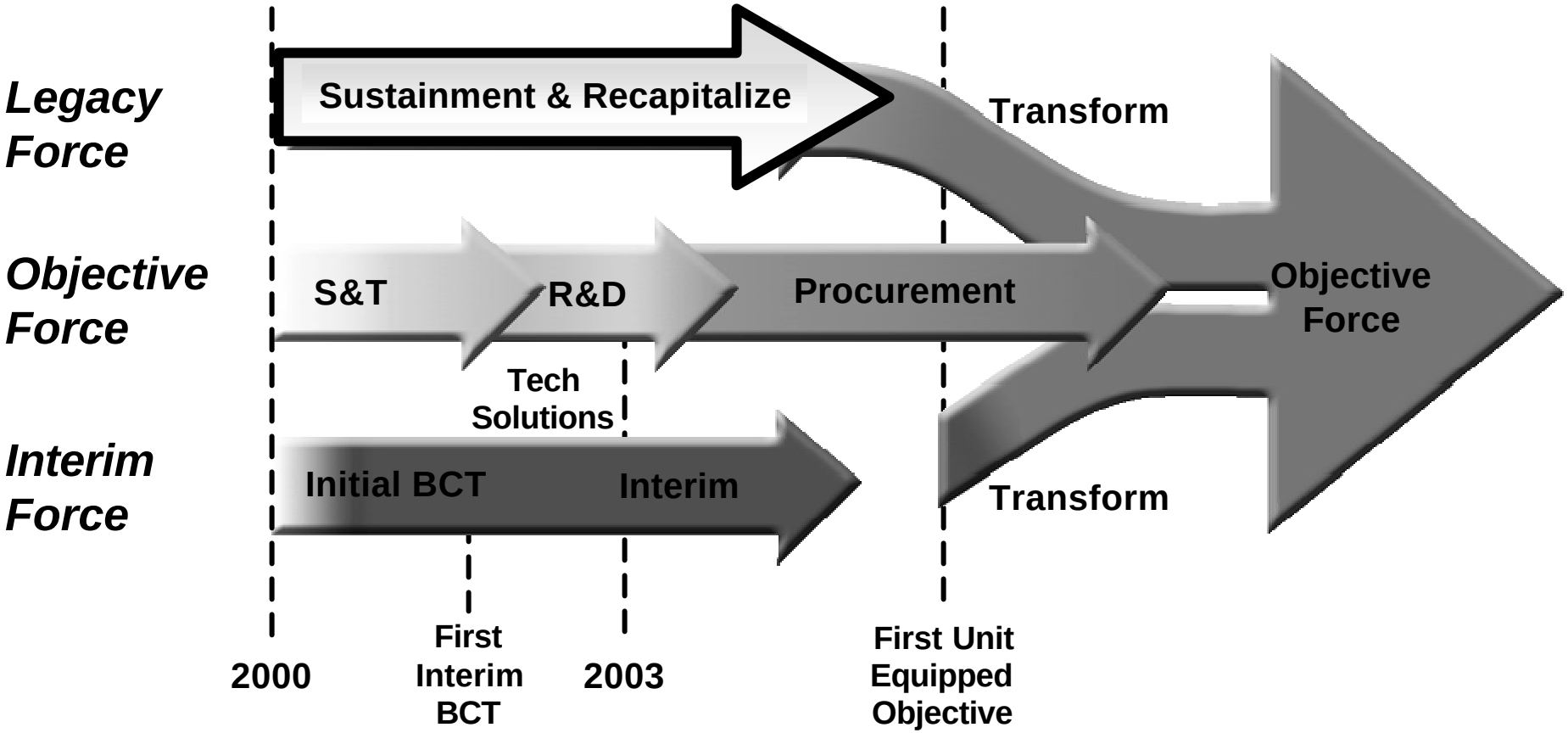
High detection/ Low false alarm rates



Locates mine within .15m

Integration efforts with Land Warrior

The Army Transformation



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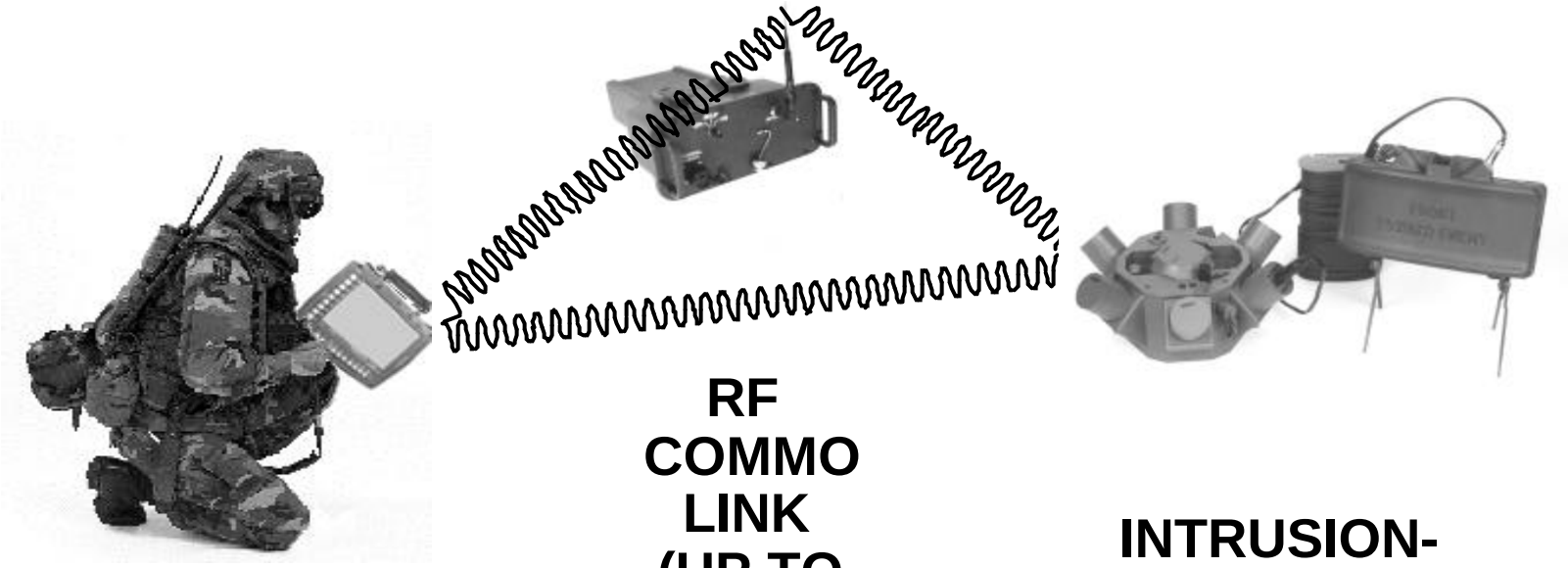
Non Self-Destruct Alternative (NSD-A)

- 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

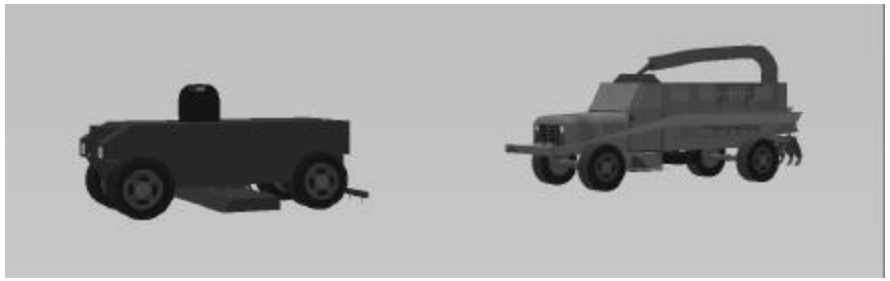
FIGHTING POSITION EXCAVATOR (FPE)

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

Ground Standoff Minefield Detection System

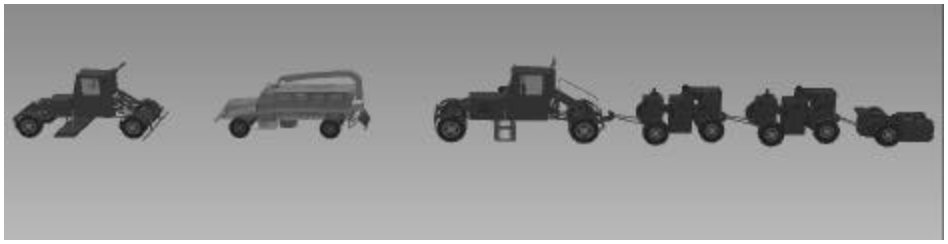
(GSTAMIDS)

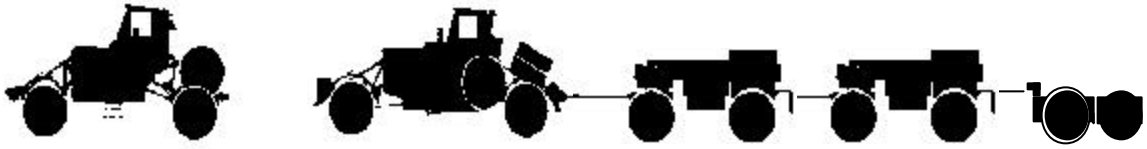
Forward looking detection.
Standoff neutralization.
Fits on most vehicles.



Improved detection platform.
Explosives confirmation.
Improved neutralizer.

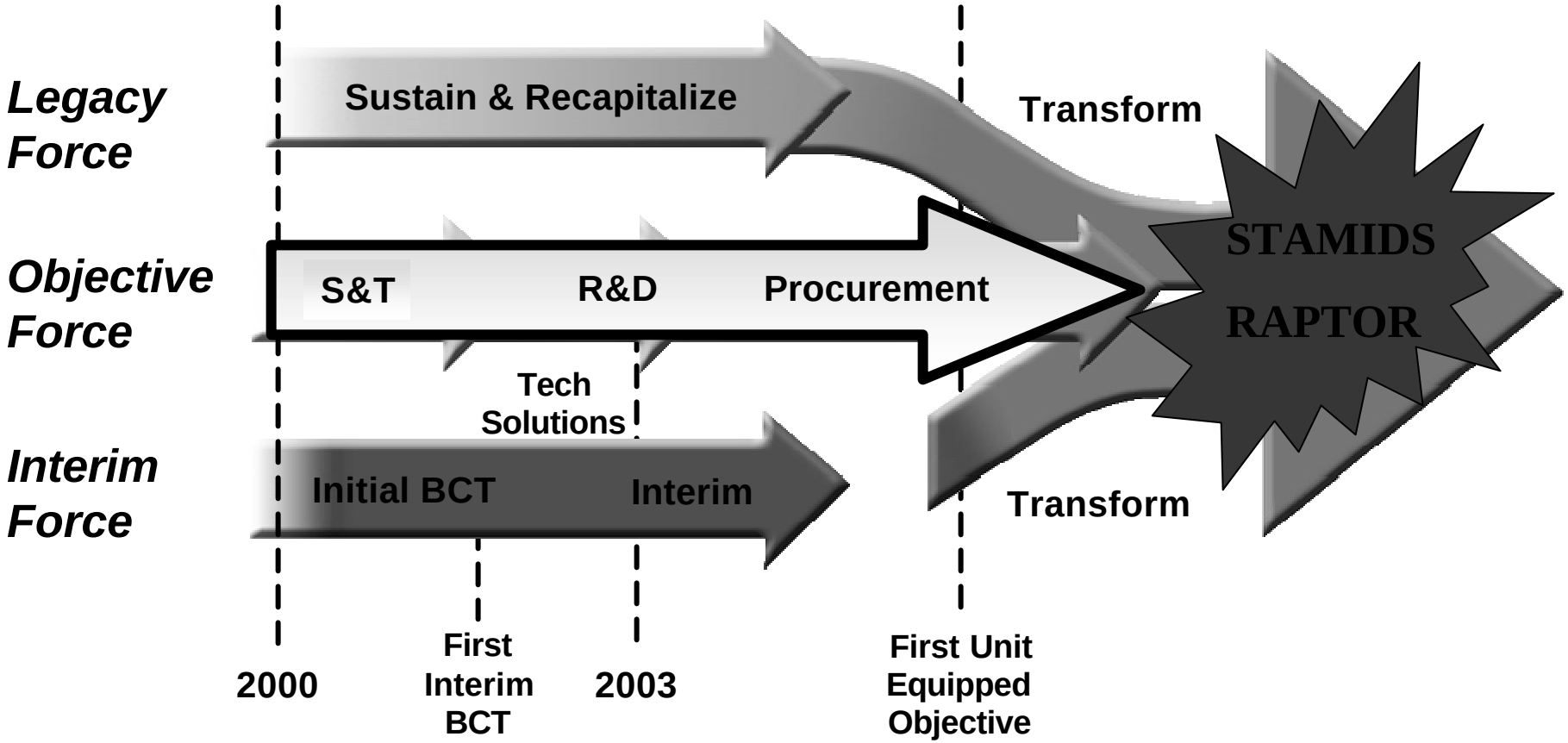
All AT Mine detection.
Mechanical neutralization.
Ten systems.





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

The Army Transformation



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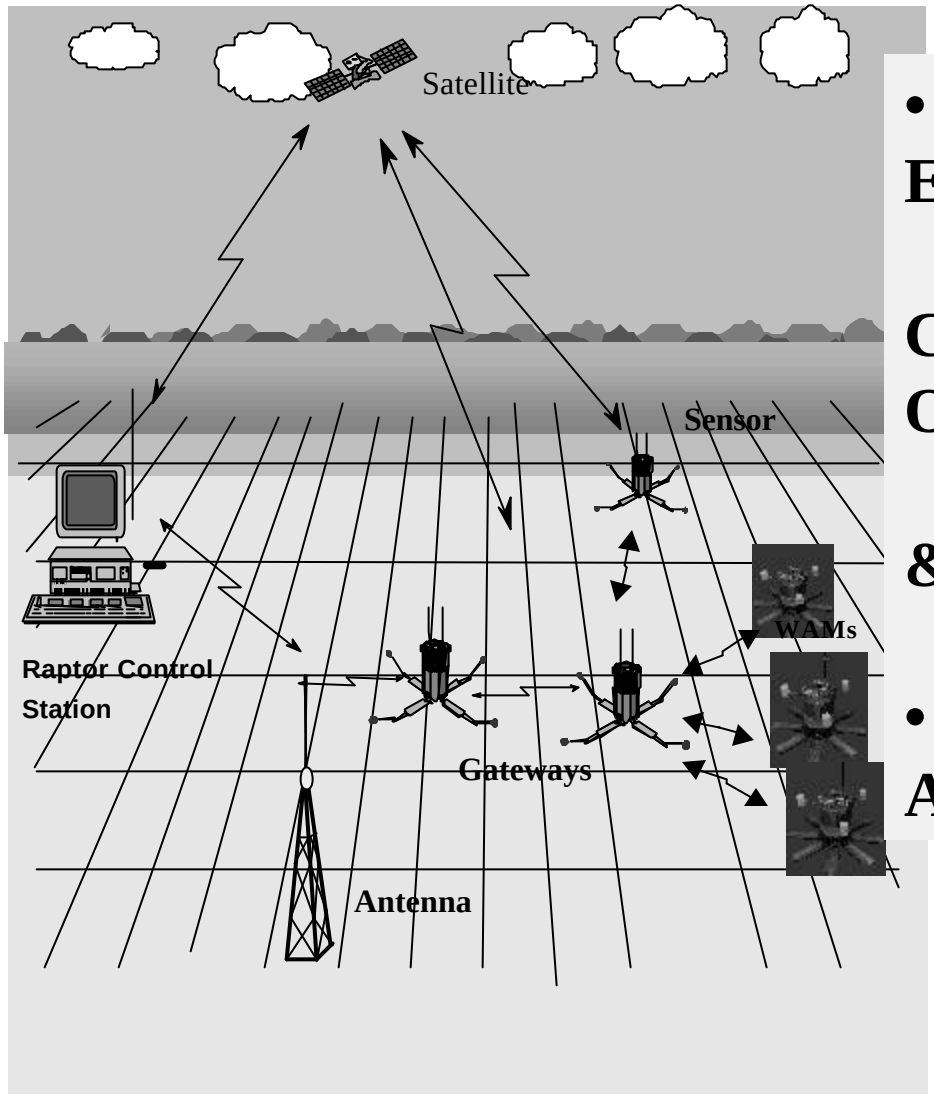
CORE RAPTOR



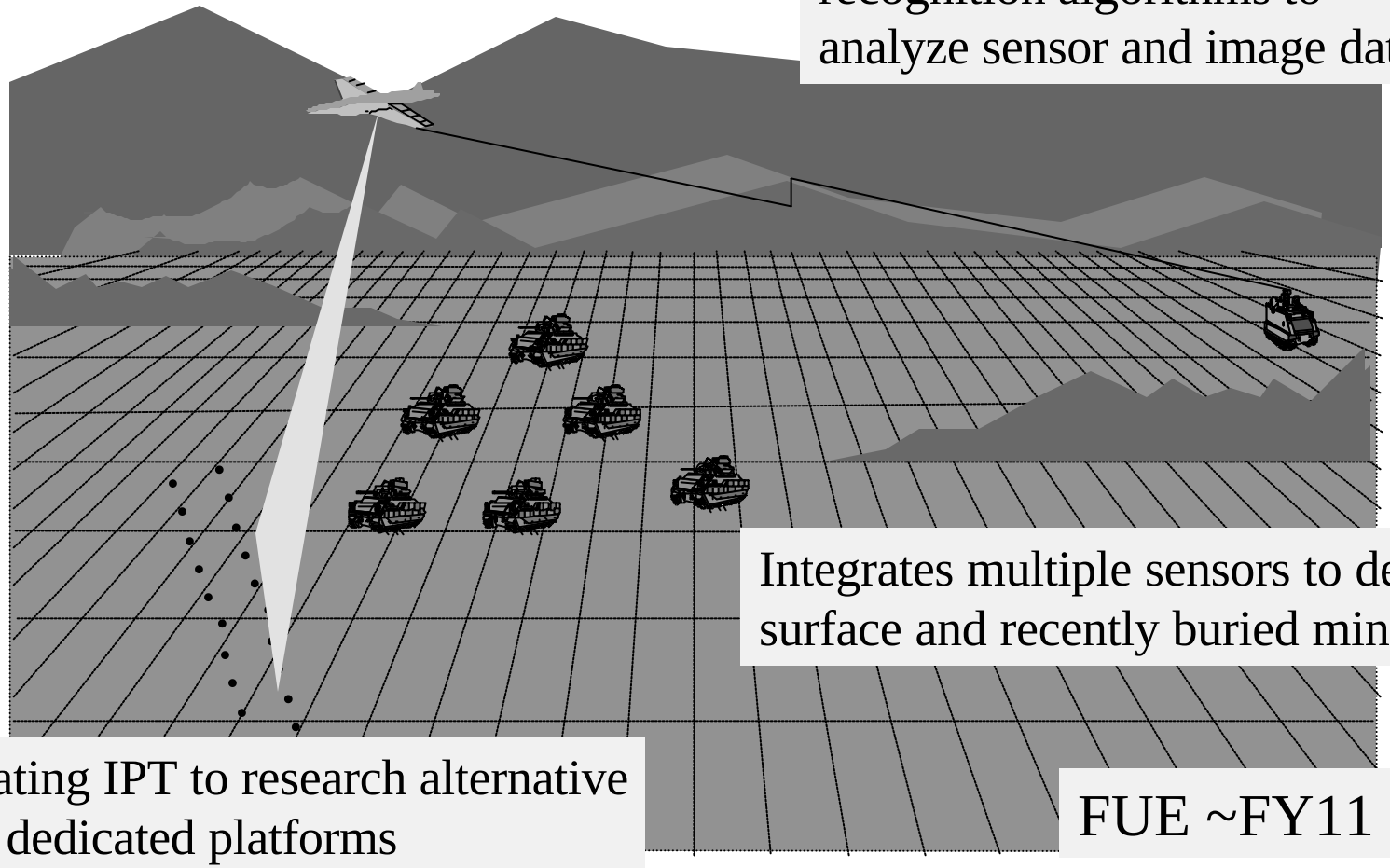
- **ENHANCED MINEFIELD EFFECTIVENESS THROUGH:**
  - **COMMUNICATION, COMMAND AND CONTROL OF ADVANCED HORNET**
  - **COORDINATED ATTACKS & TACTICS**

- **INCREASED SITUATIONAL AWARENESS**

Airborne Standoff Minefield Detection System (ASTAMIDS)

Transition from NVESD LAMD ATD FY03/04

Employ automatic target recognition algorithms to analyze sensor and image data

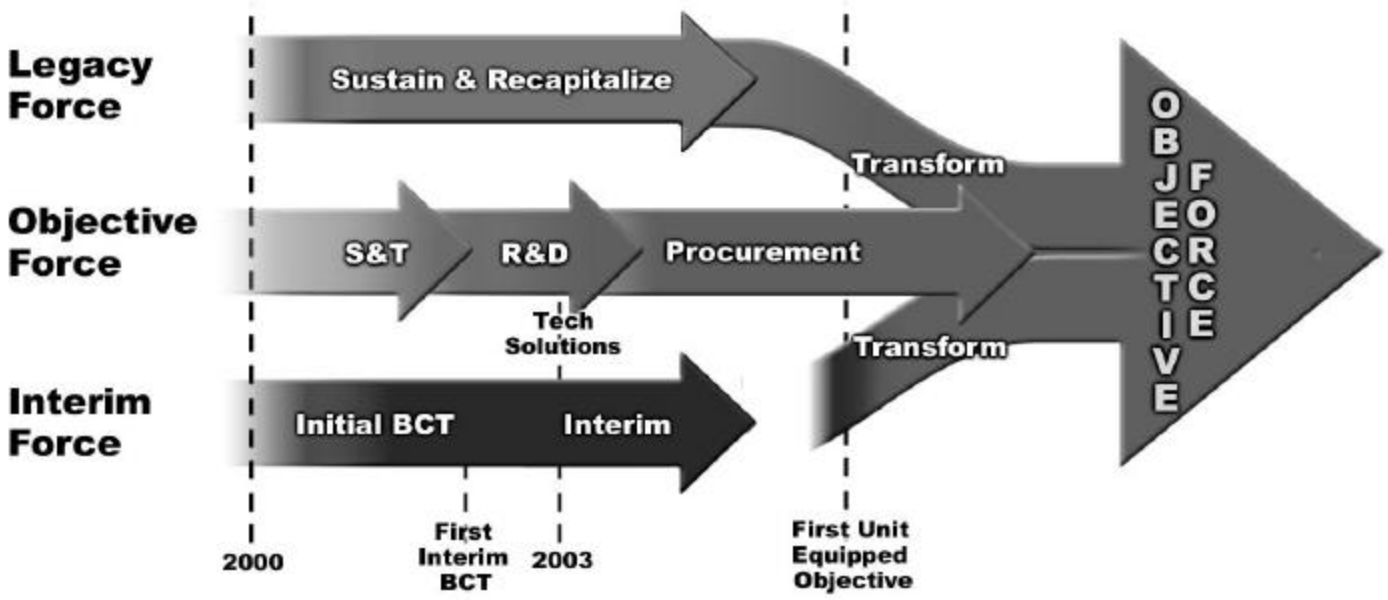


Integrates multiple sensors to detect surface and recently buried minefields

Initiating IPT to research alternative and dedicated platforms

FUE ~FY11

PM-MCD Support To The Army Transformation



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