MINES, COUNTERMINE AND DEMOLITIONS
In Support of Army’s Transformation
Briefing for
NDIA Firepower Conference
20 June 2001

BRIEFER:
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**Report Documentation Page**

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<td>Proceedings from Armaments for the Army Transformation Conference, 18-20 June 2001 sponsored by NDIA</td>
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Where We Fit in the Tank-automotive & Armaments Command (TACOM)

Over 300 Systems
$7.4B Procurement
$828M RDTE
$1.1B FMS
TACOM Operates at the Heart of Army Transformation
The Army Transformation

Legacy Force
- Sustain & Recapitalize

Objective Force
- S&T
- R&D
- Tech Solutions
- Procurement

Interim Force
- Initial BCT
- Interim
- 2000
- First Interim BCT
- 2003
- First Unit Equipped Objective

Objective Force

... Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Sustainable
**BCT Engineer Squad Vehicle (ESV)**

- Magnetic Signature Duplicator*
- Lightweight Plow and Roller*
- Obstacle Marking System*
- 9-Hornets, 2-APOBS, 8 SLAMS, 3-PSS-12/HSTAMIDS

* Included in IAV RFP

Towed
ESMC or Volcano
Explosive Standoff Minefield Clearer (ESMC)

95% effective in clearing a lane

Defeats all approved Threat AT mines

BCT FUE 2QFY05

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**

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
The Army Transformation

Legacy Force

Objective Force

Interim Force

Sustainment & Recapitalize

Transform

S&T
R&D
Procurement

Initial BCT
First Interim BCT
Interim

2000

2003

First Unit Equipped Objective

Responsive, Deployable, Agile, Versatile, Lethal, Survivable, Sustainable
Non Self-Destruct Alternative (NSD-A)

- Discriminates (MITL)
- Replaces M14/M16

SOLDIER CONTROLLER WITH APLA RADIO

REPEATER BOOSTS RF COMMO LINK RANGE

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

Legacy Force

Objective Force

Interim Force

Sustain & Recapitalize

Transform

S&T

R&D

Procurement

Tech Solutions

First Interim BCT

First Unit Equipped Objective

2000

2003

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

Legacy Force
Objective Force
Interim Force

Sustain & Recapitalize
Transform
Transform

S&T
R&D
Procurement

Initial BCT
First Interim BCT
First Unit Equipped Objective

2000
2003

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