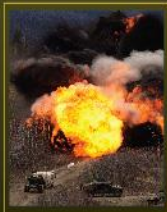


Future Force Capabilities Conference

20 September 2022

COL Russell Hoff
Project Manager
(973) 724-7041
russell.v.hoff.mil@army.mil

Mr. Joseph Pelino
Deputy Project Manager
(973) 724-3457
joseph.pelino.civ@army.mil



(U) Team PM CCS



ON **EVERY**
MISSION

- **Manage 44% of the Army's conventional munition lethality**
- **384 products: 316 Class V, 59 Class VII & 9 RDT&E**
- **Average 60 Contracting Actions/Year**
- **Oldest PMO in the US Army, 1961 "PM-Selected Ammunition"**



Mission

Provide dominant and innovative lethal and protective capabilities for the Joint Warfighter through acquisition excellence

Vision

Skilled innovative team, empowered to deliver dominating close combat capabilities

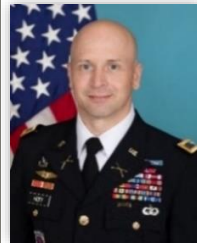
(U) Team PM CCS



ON EVERY MISSION

Provide dominant and innovative lethal and protective capabilities for the Joint Warfighter through acquisition excellence

ON EVERY MISSION



Project Manager
COL Russell Hoff



Deputy PM
Joe Pelino



Business Division Manager
Anita Polesky



Chief, Product Support
Fred Willecke

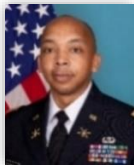


Director, Program Integration & International Division
Michael O'Grady (Actg)



Manager, Technology Management Division
Rob Dressel (Actg)

Product Manager
Terrain Shaping Obstacles



Product Manager
LTC Isaac Cuthbertson



Deputy PdM
Frank Altamura

Asst Product Manager(s)
MAJ Manuel Macias

Branch Chiefs
XM343 SAVO: Sean Stevens
TAC2: Eli Vainchenker

Product Director
Combat Armaments & Protection Systems



Product Director
David Millette



Deputy PD
Don Palathinkal

Asst Product Manager
MAJ John Pfromm
G&PS Branch Chief
Tinesha Nicholas

Team Leads
Shoulder Launched: Aza Villar (Actg)
Grenades: Hugh MacMillan
Protection Systems: Derek DeReiter

Product Director
Demolitions & Countermeasures



Product Director
Michael Burke



Deputy PD
Stephen McFarlane (Actg)

Asst Product Manager
MAJ Thomas Fite

Branch Chiefs
Pyrotechnics: Harvard Yuen
Demolitions: Phillip Lawson

(U) PM CCS Portfolio



ON EVERY MISSION

Protection System



AN/PSS-14C Hand Held Mine Detector



SS-ADT



Taser



Acoustic Hailing Device

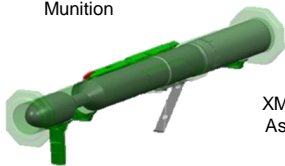
Shoulder Launched Munitions



Bunker Defeat Munition



AT4 & AT4CS



XM919 Individual Assault Munition (Notional)

Grenades



M67 Fragmentation Hand Grenade



M111 Offensive Hand Grenade



M106 SOD-V_r



M228 Practice Fuze



Smoke Grenades

Terrain Shaping Obstacle



XM204 Top Attack



Close Terrain Shaping Obstacle Inc 1



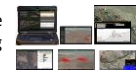
XM343 Standoff Activated Volcano Obstacle (SAVO)



Next Gen. TA Munition System



Remote Control System



Demolitions



SLAM



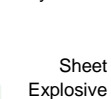
Claymore



RF-Remote Activation System



Shaped Charge



Sheet Explosive



Det Cord



C-4 Block

Pyrotechnics



Signals



Simulators



Countermeasure Flares

EOD



Explosive Ordnance Response Kit

Smart Ray Vision (SRV)



Render Safe – Sets, Kits and Outfits (RS-SKO)



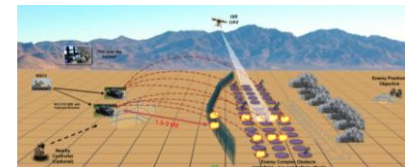
Breaching Systems



APOBS



MICLIC



Next Generation Explosive Breacher

(U) PdM TSO Portfolio



ON EVERY MISSION

XM 204 TOP ATTACK



XM204 Top Attack
(4 munitions per launcher)

XM343 SAVO



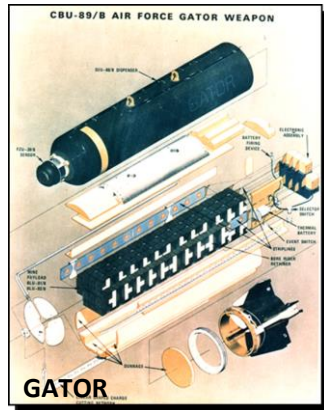
XM343
Standoff Activated
Volcano Obstacle (SAVO)

CTSO Inc 1

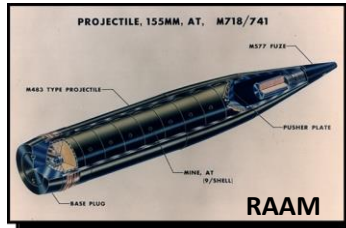
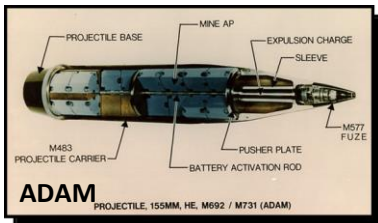
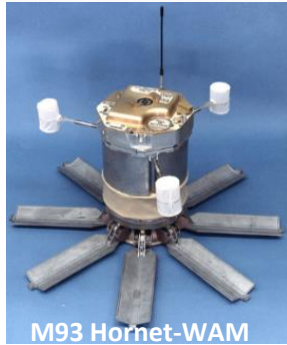
Next Gen. TA Munition System

Remote Control System

Obstacle Planning Tool



LEGACY MINES



M7 SPIDER Networked Munition System



CTSO – Close Terrain Shaping Obstacles
ADAM – Area Denial Artillery Munition
RAAM – Remote Anti Armor Munition
WAM – Wide Area Munition
MOPMS – Modular Pack Mine System

(U) PD CAPS Portfolio (cont'd)



ON EVERY MISSION

PROTECTION SYSTEMS



AN/PSS-14C



Acoustic Hailing Device



Solid State – Active Denial Technology



Intermediate Force Carbine (IFC)



INTERMEDIATE FORCE CAPABILITIES

66mm LAUNCHED GRENADES



12 gauge



NON-LETHAL HAND GRENADES



40mm



NON-STANDARD SYSTEMS

Handheld Detection Equipment



Passive InfraRed JUONS



Rhino

Lightguard Mercury



Jackal

(U) PD D&CM Demolitions/Mines Portfolio



ON EVERY MISSION

LANE BREACHING



MICLIC



APOBS

Explosive Breacher Concept

Neutralization Payload Delivery System



Detection System - UAS and Sensors



Neutralizer Warheads

DEMOLITION INITIATORS



MI RAMS XM27 Transmitter w/ Auxiliary Battery Pack

Type "B" Receiver



Remote Activation System (RAMS)

Type "A" Receiver



M15 w/Shock Tube



M6 Electric Blasting Cap



Modernized Demo Initiators (MDI)



Time Delay-Sympathetic Detonator (TD-SYDET)



M700 Time Fuse

DEMOLITION DEVICES



M303 BDK



CLAYMORE



Shaped Charge



Cratering Charge



Detonation Cord

PLASTIC EXPLOSIVES

COMP C-4



Sheet Explosive

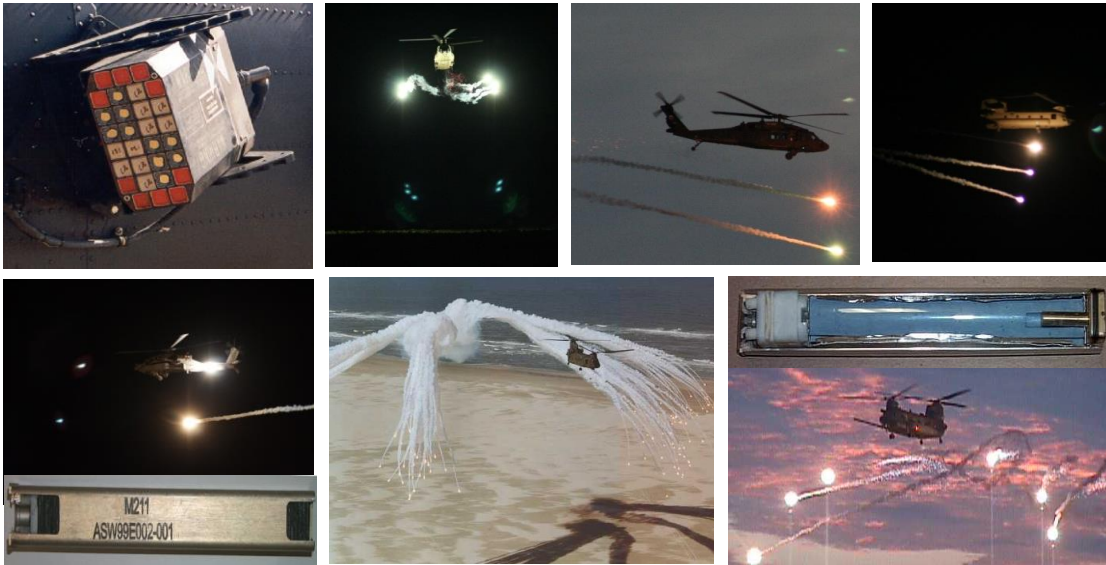


(U) PD Demolitions and Countermeasures Pyrotechnics Portfolio



ON EVERY MISSION

FLARES



SIGNALS



SIMULATORS



(U) PD D&CM Explosive Ordnance Disposal Portfolio



ON EVERY MISSION

Small Caliber Dearermer (SCD) MK 38 MOD 0



Stand-Off Disrupter– Unexploded Ordnance Tool (SD-U XO) MK 40 MOD 0



Hook and Line Kit



Render Safe – Enhanced Robotic Payloads



Medium Directional Energy Tool (MDET)



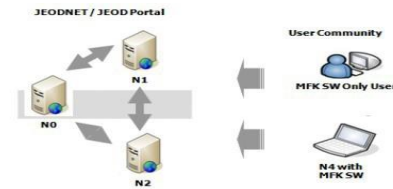
Transmitter, Countermeasure (TCM): AN/PLT- 4



Smart Ray Vision (SRV)



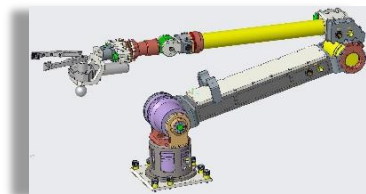
Decision Support System (DSS)



Highly Dexterous Manipulation System



Multi-shot Disrupor



EOD Response Kit



Transmitter, Countermeasure (TCM): AN/PLT- 5



Stand-Off Disrupter IED Tool – PAN Disrupter



Precision Aim Module

Render Safe – Sets, Kits and Outfits



X-Ray Imager, COTS



Buried IED Detection, COTS



X-Ray Generator, COTS



Render Safe Initiation, COTS



Gamma and Neutron Search and Detection, COTS



Dismounted Operations Protection, GOTS



Power Management, COTS



Trace Detection, COTS



Unmanned Aerial System (UAS), COTS



Localized Incident Site Protection, Development



Low Light Visual Augmentation System, COTS

Close Terrain Shaping Obstacles (CTSO) Development Strategy



ON **EVERY**
MISSION

Interim/ONS



MTA



ACQ: FY19

IOC: FY23

ACQ: FY22

IOC: FY28

ACQ: FY26

IOC: FY31

Top
Attack

XM204 Top Attack



Capabilities:

- Affordable, easily trained & employed
- Ground-based, lethal Anti-Vehicle (AV) obstacle w/breach resistance measures
- Detect, Track & Engage Threat Vehicles
- Durable & Versatile: Maneuver Support & Maneuver Missions
- 4 hr, 48 hr, or 15 day Soldier selected self-destruct times

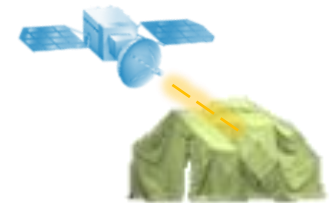
Top Attack



Capabilities:

- + Rapidly Emplaced; Recoverable & Reusable (Close)
- + Improved Lethality and sensing
- + Advanced counter-measure resistance
- + Common Control for networked obstacles
- + ON-OFF-ON Munitions
- + Self Report location of obstacles
- + Self report status, tamper, and/or activation of munition field
- + Remotely modified self-destruct / self-deactivate times
- + Command destruct / deactivate

Full Network Capability



Capabilities:

- + System communications (2-300 km)
- + Automated Cryptography and Command & Control
- + Ground-based, lethal AV complex obstacle (Bottom and Top Attack) with breaching resistance measures
- + All Terrain/Weather Environments and Deliverable at *Close, Mid, and Deep Ranges*
- + Direct Integration to Mission Command. Common Operating Picture.

ACQ: FY19

IOC: FY23

ACQ: FY25

IOC: FY29

Bottom
Attack

XM343 SAVO



Capabilities:

- Hand emplaced, man portable alternative means to employ Volcano canisters to form an AV obstacle
- Rapid obstacle emplacement and recovery
- SAVO baseplate (new item) will use existing inventory
 - Initiation System(s): M7 Spider, RAMS, Blasting Machine
 - Munition: M87/M87A1 Volcano munitions

Bottom Attack



Capabilities:

- Rapidly Emplaced
- ON-OFF-ON Munitions
- Increased Lethality against Main-Battle Tanks (MBTs)
- Self Report location of obstacles
- Self report status, tamper, and/or activation of munition field
- Remotely modified self-destruct / self-deactivate times
- Command destruct / deactivate

(U) TMRR Concept Demonstration Hardware



ON **EVERY**
MISSION

Detection



- Developed by DEVCOM C5ISR & Ft. Belvoir
- Supporting multiple customers including NGCV CFT (Project Convergence)
- FLIR SkyRaider R80D UAS
- Purpose-built electro-optical sensor with on-board processing, data storage, and optional laser designator / range-finder capabilities

Launcher



- Automated Direct/Indirect Mortar (ADIM) developed and demonstrated under S&T effort by DEVCOM AC in 2011-2014
- Fires 81mm Mortar munitions
- Modular (currently integrated onto a HMMWV)
- Recoil mitigation, on-board fire control with weapon auto-laying, and 20-round autoloader



Neutralizer Array



- Explosive Penetrator developed by DEVCOM AC and transitioned to Explosive Breacher Program of Record
- Packaging of penetrator array into 81mm form factor will be completed during TMRR
- Designed for compliance with Cluster Munition Policy
- Will investigate potential need for guidance (i.e. laser, GPS) during TMRR

(U) Next Generation Breaching Technologies



ON **EVERY**
MISSION

Seek

- UAS
- Manual & Automated control
- Multi-Spectrum Sensor Technologies
- Signal Processing Algorithms
- Small, light & energy efficient electronics

Enablers

- Secure Communications
- Precision Navigation & Timing (PNT)

MOS 12B Army Combat Engineer

Negate

- Stand-off Armament System
- Accurate Delivered Munition
- Neutralizer Payloads
- Multi-Fuze Conditions
- Directed Energy

(U) Challenges Requiring Industry Partner Help



ON **EVERY**
MISSION

Industrial Base

- Assured Munitions
 - Supply Chain Awareness & Visibility
 - Supply Chain Risk Management
 - Electronic Component Obsolescence
 - Digital Engineering
- Cybersecurity Requirements
 - Products
 - Facilities/Equipment
 - IT Systems
- Modernize/Automate Production & Inspection Methods
- Maintaining Production Capacities with ability to Surge

Technology Base

- Use of Modeling & Simulation
- Advanced Manufacturing
- Breaching Technologies
- Novel Surface-to-Air Missile Countermeasure solutions
- Novel Energetic Formulations
- Improved Chemical Formulation Processes at Affordable Price Point
- Advanced Fuze Design
- Enhance Warheads Performance
- Improved Munition Power Sources

Closing



ON **EVERY**
MISSION