PEO

Munitions Executive Summit 8 Apr 2015

munition

PM Panel Discussion

Presented by: BG Patrick Burden DPEO Ammunition

RIBUTION A. Approved for public release: distribution unlimited (5/27/15). PAO Log #392



Program Executive Office Ammunition Organization



Project Manager Combat Ammunition Systems

Indirect Fire Munitions and Mortar Weapon Systems Excalibur

COL Willie

 Guided Precision Munitions & **Mortar Systems** Coleman



Hornstein

Project Manager Close Combat Systems

Networked Munitions, Force Application Systems, Explosive Hazard, and Countermine

- Counter Explosive Hazard
- Combat Systems
- Support Munitions



Mr. Matt

Zimmerman

Project Director Joint Services

- SMCA Integration
- Demilitarization
- Ammunition Industrial Base
- Ammunition Logistics R&D
- Technology and Prototyping



O/EDCA **Executive Director Conventional Ammunition**

SMCA Assessment

CAPT Ronald Kocher USN



PFO Ammunition Mr. James Shields

DPEO Ammunition **BG** Patrick Burden

Command Chief

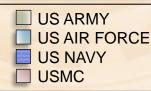
Warrant Officer

CW5 Bill Lewis



APEO International Doreen Chaplin

Develop, equip, and sustain lethal armament and protective systems enabling joint warfighter dominance





Mr. Chris Grassano

Chief of Staff

- Systems Acquisition
- Business Management
- Human Resources
- International
- CIO





Support Fires for Maneuver forces

- M777A2 Lightweight 155mm Howitzer
- M119A3 105mm Howitzer Digitization
- Target Acquisition



Gutierrez

Mr. Keith

Gooding

USMC

Project Manager Maneuver Ammunition **Systems**

Direct Fire Munitions • Small, Medium and Large Caliber Non-Standard Ammunition

Project Director Joint Products

 Air Force and Navy Bombs Navy Deck Gun Ammo Energetics CAD PAD

Single Manager for Conventional Ammunition



Area Denial



Conventional Ammunition Modernization Strategy

 The Soldier and the Squad are the centerpiece of the Army Equipment Modernization Strategy. Lethality is the main effort that guides development of key capabilities, and ensures operational overmatch in all operating environments. Ammunition is a key enabler that empowers and enables Soldiers and squads to maintain overmatch against any adversary in terms of lethality dominance in an ever-evolving threat environment. 		NEAR (FY17-21)		MID (FY22-31)		FAR (FY32-46)		BCT CPR Critical Capabilities
		 Focus on efforts to increase lethality and range of current small and medium caliber ammunition Begin fielding the 120mm Advance Kinetic Energy 	llity and ent small and	Focus on efforts Enhan Lethality and extended range for Artillery and Mortar munitions and	ed d	 Begin next generation of breaching devices, counter mobility and demolitions. Begin next generation 	er	Advanced Performance Ammunition
			 improved fuzing ➢ Begin fielding of 120mm Advanced Multi Purpose 	mm ose	counter defilade target engagement munitions	0	Reduced Firing and Tracer Signatures	
Current Strategy (LIRA-17)	LETHALITY The ability to kill or cause physical destruction (TRADOC Pam 525-3-1)	cartridge	 Tank cartridge Finalize requirements for handgun, sniper and counter 		Begin next major modernization effort for artillery, mortars and tank ammunition	nii T	Lightweight Ammunition	
The Army will develop Leap- Ahead, Highly Lethal Ammunition for Soldiers & Future Combat		➢ RDT&E for Sr One Way Lun and Lightweig	inescence > RDT&	➢ RDT&E for Artillery an Mortar Extended Range		1		40mm Capabilities
Weapon Systems, and Modify existing Ammunition Systems to Meet Near Term Capability Gaps		Caliber Ammunition > RDT&E for 40mm Low Velocity Increased Range Anti-Personnel and warhead improvements		Lethality Improvements Begin Fielding the 120mm 	nts	 Develop Requirements for Future breaching and demolition devices 		Individual Assault Munition
for Lethality, Precision and Overmatch. We will Reset and Sustain for the Current Fight and				AMP Cartridge ➤ Begin Fielding the Individual Assault		 Begin RDT&E for Future Tank ammunition Begin RDT&E for future 		Smart Small Caliber Munitions
Divest Systems to Free up Critical Sustainment Resources. Continue to preserve the War Reserve and		 RDT&E for Ac Armor-Piercin Purpose taction for .50 Caliber 	g and All cal Cartridge r	 Munitions > Begin Fielding Mobile Ammunition Processir facilities 	e	artillery and mortar lethality		Collective Training Ammunition
Ammunition Production Base and accept risk in training.		Reduced Ran Ammunition	ge Training					Improved Indirect Munitions
TRADOC Paraphere 525-5-1	Ammunition							V
Operating Concept Win in a Complex	Elements of Expeditionary Maneuver & Joint Combined Arms Operations • Respond Globally• Establish and		Operations • Move • Eires		Wa	Warfighting Functions ovement & Maneuver es		Endstate Brigade Combat Teams with
								unmatched <u>Lethality</u> , and <u>Survivability</u> capable of
2020-2040			•Man •Mobility •Mobility		neuver Support and tection nduct Engagement		conducting Expeditionary Maneuver and Joint Combinea Arms Operations in support of	
7 OCTOBER 2014	Operations		for a left of the	and distribution unlimited		DAO 1 or #200 45		Unified Land Operations

DISTRIBUTION A. Approved for public release: distribution unlimited (5/27/15). PAO Log #392-15



PEO Ammo Focus Areas

Flares & Signals

Near-term:

- Defeating increased threats to aircraft
- environmentally friendly materials

Mid-term:

- Defeating advanced aircraft threats
- Lighter and more tunable countermeasures (multi-purpose)

Long term:

• Fully tunable effects (user selectable)

Tank Ammo

Near-term:

- Advanced KE and AMP Mid-term:
- DU alternates

Long-term:

• Guided extended range for advanced targets

Small Cal

Near-term:

- OWL and ADVAP Mid-term:
- Lighter weight ammo

Long-term:

- Extended range guided with user tunable effects
- "Trace" capability in smart sight on the weapon vs. on the round
- "Ammo on demand" user has the capability to "produce" the ammo as needed.





Artillery & Mortars Near Term:

- Fielding light-weight weapons / Precision ammunition
- Producing High Explosive (HE) rounds with insensitive munition fills
- Compatibility with M-Code GPS Mid-term:
- High Explosive Guided Mortar (HEGM)
- Light-weight digital fire control
- Longer range through ammo improvements
 Long-term:
- Longer range through weapon upgrades
- Light vehicle mounted direct/indirect fire mortar (ADIM)







Demolitions:

Near-term

 Improving producibility of Modernized Demolition Initiators (MDI) components (i.e., blasting cap)

Mid-term

- More portable and modular components
- Reducing collateral damage
- Developing more IMX compliant items
 Long-term
- Non-kinetic neutralization of explosives from standoff.





PEO Ammo Focus Areas (cont.)

Medium Caliber

Near-term:

 Increased lethality through warhead and round design

Mid-term:

- Extended range and guidance Long-term:
- Collaborative/swarming effects
- "Ammo on Demand"

Non-Lethal

Near-term:

 Improvements to the 40mm and 12 ga ammunition

Mid-term:

- More covert and passive marking of targets Long-term:
- Integrated lethal and non-lethal effects and nonkinetic engagement



Shoulder Launched

Near-term:

- Development of IAM Mid-term:
- Fielding of IAM

Long-term:

Longer range defeat of advanced targets

Area Denial

Near-term:

- Spider (all increments) • Mid-term:
- FASCAM (Family of Scatterable Mines) Long-term:
- Remote/autonomous emplacement and scalable effects.



Counter Explosive Hazard (CEH)

Near-term:

- Fielding of mounted systems (HMDS)
- Development of autonomous operations (AMDS)

Mid-term:

Greater speed and standoff for detection marking and lower cost technologies

Long-term:

Detection and non-kinetic neutralization of explosives from standoff

Grenades

Near-term:

- Benign smoke & fuze/primer upgrades • Mid to long term:
- Dual use lethal/stun grenade and multi-smoke grenades

Long-term:

Non-kinetic effects and lighter weight •







At the End of the Day...



We're Meeting Joint Warfighter's Needs !

DISTRIBUTION A. Approved for public release: distribution unlimited (5/27/15). PAO Log #392-15