THE HIGHEST CALIBER
We make the ammo...
You make the difference
**MISSION**

Develop and Procure Conventional and Leap-Ahead Munitions Combat Power to Warfighters

**GOALS**

- Get PGM’s & Smart Weapons to Warfighters
- Improve and Sustain the Conventional Stockpile
- Satisfy the Customer, Achieve Excellence
- Grow World-Class People and Teams
Where We Are Today

- **Single Manager for Conventional Ammunition (SMCA)**
  - ASA(ALT) Named SMCA – 8 Jan 2003
  - PEO Ammunition Named SMCA Executor – 16 Apr 2003
  - SMCA Charter in Service Review
  - All FY04 Service Funding Goes thru PEO Ammunition
  - PM’s are Engaging Other Services
  - Forming SMCA Acquisition Council
  - Implementing Ammo Enterprise

- **Metrics – Covering All SMCA Functional Areas**

- All Major Issues Resolved
- Moving Forward With Execution
- Measuring Improvements
PEO Ammo Organization

PEO Ammunition
BG Paul Izzo
Mr. Kevin Fahey

Close Combat Systems
Mr. Jim Sutton

Combat Ammo Systems - Indirect Fire
COL Nate Sledge

Maneuver Ammo System - Direct Fire
Mr. Bill Sanville

Joint Services
COL Jeff Gwilliam

Washington, D.C.
Liaison Team

Industrial Base
Mr. Matt Zimmerman
APEO Industrial Base

Networked Munitions/
Munitions / Non-Lethal
Demolitions
Mortars
Excalibur
Large Caliber
Medium & Small Caliber
DEMIL
PEO Ammo Main Objective

- Unify & Integrate Ammunition Management Under One Single Chain of Command…by Consolidating Responsibility and Resource Management in the PEO
- Develop a Unified Munitions Acquisition Strategy
  - Integrate Requirements…Training, War Reserve, & Modernization
  - Include SMCA Mission
  - By Munition Family
- Identify and Optimize Key Business Processes
- Develop an Industrial Base Strategy (Organic and Commercial)

Common Themes From PNNL Study, GAO Study, and Emerging Rand Study

Authority and Accountability…For Meeting Full Military Requirement For all Ammo Families
Where PEO Ammo Programs Came From

Established: January 1, 2002

PEO GCS
- PM ARMS
- PM TMAS
- PM Crusader (MACS)  # Programs 23

DSA-TACOM
- PM Mines
- PM Mortars
- PM Small Arms  # Programs 74

AMC/DCS Ammo
- Training Ammo
- Industrial Base
- Demil
- ARDEC (Fuze Programs)  # Programs 94

PEO Ammo
- PM MAS
- PM CAS
- PM CCS
- PM Joint Services

Total RDA Programs 191 programs

Total People Managed 725 at Picatinny

ARDEC Life-Cycle Engineering Support:
- Competencies
- Modeling and Simulation
- Technology Maturation
- Sustainment Support

Total Dollars $1,799.6 M
PM Combat Ammunition Systems
- Artillery Ammunition
- Artillery Fuze
- Mortar

PM Maneuver Ammunition Systems
- Large Caliber
- Medium Caliber
- Small Caliber

PM Close Combat Systems
- Mines, Countermines & Demolition

PM Joint Services
- Industrial Base/Facilities
- Demil

PEO Ammo

Source: FY05 PB
PEO Ammo
Management Philosophy

- Promote Best Value Acquisitions
- Reinforce Success
- Utilize Disciplined Processes
- Promote Six Sigma and Lean Design/Production
- Promote Continuous Process Improvement and Technology Insertion
- Promote Commonality and Interoperability
- Spiral or Evolutionary System Development

Put Eyeballs On – “Trust, but Verify”
Section 806 Summary
Procurement Approach Distributions

Section 806:
• Public Law 105-261, Procurement of Conventional Ammunition
• Permits SMCA to Restrict Procurements to Sources within NTIB

<table>
<thead>
<tr>
<th>FY03 Procurements</th>
<th>FY04 Procurements</th>
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<tbody>
<tr>
<td><strong>Army</strong></td>
<td><strong>Army</strong></td>
</tr>
<tr>
<td>19</td>
<td>52</td>
</tr>
<tr>
<td>$2430.4M</td>
<td>$223.9M</td>
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<td><strong>USMC</strong></td>
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<tr>
<td>$205.2M</td>
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<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
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<tr>
<td>112</td>
<td>166</td>
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<tr>
<td>$4331.6M</td>
<td>$1431.5M</td>
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<table>
<thead>
<tr>
<th>FY03 Sec 806s</th>
<th>FY04 Sec 806s</th>
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<tbody>
<tr>
<td>Army 34</td>
<td>Army 98</td>
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<tr>
<td>$1689.7M</td>
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<td>USN 61</td>
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<td>$435.1M</td>
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<td>USMC 3</td>
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<td>$19.4M</td>
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<td>USAF 14</td>
<td>USAF 27</td>
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<td>$2187.4M</td>
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<tr>
<td><strong>Total</strong> 112</td>
<td><strong>Total</strong> 166</td>
</tr>
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<td>$4331.6M</td>
<td>$1431.5M</td>
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</tbody>
</table>

- Competition Limited to the NTIB
- Full and Open
- Sole Source
- Small Business Set Aside

• PEO Ammo Delegated Section 806 Authority Nov 02
## Close Combat Systems Mission

**Equip Soldiers with Close Combat Systems for:**

<table>
<thead>
<tr>
<th>Assured Mobility</th>
<th>Force Protection</th>
<th>Close Battle</th>
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</thead>
<tbody>
<tr>
<td>Intelligent Munitions System</td>
<td>APLA</td>
<td>Hard Target Defeat</td>
</tr>
<tr>
<td>Anti-Personnel Landmine</td>
<td>Countermine</td>
<td>Demolitions</td>
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<tr>
<td>Alternative (APLA)</td>
<td>Non-Lethal</td>
<td>Hand Grenades</td>
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<tr>
<td>Countermine</td>
<td>Pyro/Flares</td>
<td>Non-Lethal</td>
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<tr>
<td>Demolitions</td>
<td>EOD Equipment</td>
<td>Pyro/Flares</td>
</tr>
</tbody>
</table>

### Non-Lethal Capability Set
- **SBCT Volcano**
- **AN/PSS-14 Mine Detecting Set (HSTAMIDS)**
- **M67 Hand Grenade**
- **Selective Lightweight Attack Munition**
- **Non-Lethal Capability Set**

### 15 Prime Contractors
- 30 Contracts

### GOCOs
- JMC

### R&D Establishments
- TARDEC
- ARDEC
- ARL
- CERDEC

### Combat Developers
- USAES
- USAMPS
- USAFAS
- USASOC
- USAIS
- USMC

### Bunker Defeat Munition
Close Battle Feedback

**Shoulder Launched Munitions**

“Using the NL claymores at a rate of 1 every two days at the POW camps to prevent escapes and riots.” - 800th MP Bde, 13 Feb 04

**Non Lethal Capabilities Sets**

“Bottom Line is that our new equipment works well and the NLM kept us from having to kill someone as well.”

LTC Brown, Battalion Commander, Bn 709th (Task Force Falcon Provost Marshall)

**Countermeasure Flares**

“The M211/M212 flares saved my life while deployed. Thank you and everyone on your team.”

BG Clay L Newman, Commanding Officer, ARDEC 19 Dec 03

**Hand Grenades**

“Used to clear bunkers and rooms, and to destroy equipment and ammunition. Performed as expected”
PM Combat Ammunition Systems

<table>
<thead>
<tr>
<th>Concept</th>
<th>Development</th>
<th>Production</th>
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<tbody>
<tr>
<td>Excalibur Discriminating</td>
<td>M782 MOFA</td>
<td>105mm M314A3 Illum</td>
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<tr>
<td>Excalibur Unitary</td>
<td>M1155 PIIFS</td>
<td>105mm M1 HE</td>
</tr>
<tr>
<td>LCCM</td>
<td>795 E1</td>
<td>105mm M915 DPICM</td>
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<tr>
<td>75mm M337A2 Blank</td>
<td></td>
<td>155mm M765 HE Projectile</td>
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<tr>
<td></td>
<td></td>
<td>155mm M782 MOFA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M762 ET</td>
</tr>
<tr>
<td>155mm M231/M232 Prop</td>
<td></td>
<td>155mm M337A2 Blank</td>
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</tbody>
</table>

Mortars

<table>
<thead>
<tr>
<th>Concept</th>
<th>Development</th>
<th>Production</th>
<th>Sustainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>120mm XM984 DPICM</td>
<td>(MFCS) Heavy</td>
<td>60mm M769 FRPC</td>
<td>81mm M821A1/M889 A1 HE</td>
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<tr>
<td>120mm Training Insert, M303</td>
<td>MBC</td>
<td>81mm M853A1 Illum</td>
<td>120mm M983 IR</td>
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<tr>
<td>120mm XM395 (PGMM)</td>
<td></td>
<td>120mm M983 IR</td>
<td>60mm M720A1 HE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>120mm M934 HE</td>
</tr>
</tbody>
</table>
Mortars in Battle

60mm: Illum, Smoke, WP Smoke, HE
81mm: Illum, RP, HE
120mm: Smoke, Illum, IR Illum, HE

“On several occasions my mortar platoon was called upon to shoot missions two to three thousand meters beyond our max range. Most of these mission were in support of dismounts in a MOUT fight”

SSG Charles Weaver Jr. 4th BN, 64th Armored Regiment, 3ID Operation Iraqi Freedom, 2003

“120mm Mortar – A good system for pounding targets up in the mountains. Had to push out 120mm Mortar due to combat patrols moving out side the 7200m range”

SFC McLaughlin, 75th Ranger Regiment in support Operations In Afghanistan, 2002
PM Maneuver Ammunition Systems
Small Caliber Ammunition

- **.50 Cal**: A large number of soldiers commented that the M2 machine gun is “...the best weapon in the Army”
  - They successfully engaged and destroyed targets (light armor, buildings and personnel) between 50-2000 meters without experiencing any major malfunctions or breakages on the weapon system

- **7.62mm**: Coax machine gun and loader machine gun were most widely used weapons for tanks
  - Ammunition and weapon systems performed very well

- **5.56mm**: Most soldiers considered M16 weapon series to be very accurate regardless of the version or sighting system
  - One sniper team spotter employed his M16A4 (equipped with a high powered scope) against targets at 600 and 800 meters with first round hits in each case
PM Joint Services Mission

- Execute Single Manager for Conventional Ammunition (SMCA) acquisition functions
  - Manage the execution of other Services’ acquisitions not currently managed by other PEO Ammo PMs (e.g. bombs, pyrotechnics, propellant and explosives)
  - Coordinate management of other services’ acquisitions managed by other PEO Ammo PMs (e.g. artillery, cannon, small and medium caliber)
  - Oversight of PM Demil
Demilitarization

**Demil Mission:** Perform life cycle management of demil, disposal, and resource recovery and recycling (R3) of conventional munitions for all services, and DoD and US Gov’t Agencies

Demil Total FY03: $70M per year For R&D and Production
Industrial Base Management

Mission:
- Provide Integrated Supply Chain Management of the Ammunition Production Base
- Optimize Planning, Coordination & Decision Making that Affects the Preparedness of the National Technology & Industrial Base

General Responsibilities:
- SMCA Directives & Army Regulation 700-90, Army Industrial Base Process
  - Develop & Maintain an Overarching Industrial Base Strategic Plan
  - Maintain GOCO Army Ammunition Plant Production Capabilities
  - Maintain a Production Base Plan
  - Plan, Budget & Implement PAA-Activity 2 and RDT&E

  - Implement Section 806, Public Law 105-261, Procurement of Conventional Ammunition
  - Authority to Restrict Procurements to Sources Within National Tech & Industrial Base
Strategic Goals:
1. Transform to Meet Current and Future Requirements
2. Modernize Utilized Manufacturing Capacity
3. Balance Industrial Base & Acquisition Management Risk
4. Operate Efficiently and Effectively
5. Incentivize Industry to Reinvest in Capital Equipment and Processes

Sample Overarching Strategies:
1. Acquisitions Will Determine and Posture the Production Base.
2. Acquisitions and Investments Will be Synchronized to Assure Required Manufacturing Capabilities Remain Available.
3. Opportunities for Greater Joint Service Activity Will be Identified and Implemented.

Outlines Goals and Tactics to Shape the Industrial Base
Principal Strategy:
1-Align Facility Use Contracts w/ BRAC05
2-Pursue Feasibility and Overall Business Case for Sell, Long Term Lease, and/or Capability Consolidation (Pending BRAC Outcome)
Ammunition in support Family of Combat Systems

120mm Line of Sight (LOS)/Beyond Line of Sight (BLOS) Mounted Combat System (MCS)
- Mid-Range Munition (MRM)
- Advanced Kinetic Energy (KE)
- Advanced Multi-Purpose Anti-Tank (MPAT)
- Lt Wt 120mm Cannon

120mm Non Line of Sight (NLOS) - Mortar
- Precision Guided Mortar Munition (PGMM)
- Mortar Fire Control
- Advanced Mortar System (AMOS)

155mm Non Line of Sight (NLOS) - Cannon
- XM982 Excalibur
- Low Cost Course Correction
- Next Generation Scatterable Mines (NGSM)

Infantry Carrier Vehicle (ICV)
- Bursting Munitions
- Medium Caliber Program
- Ground Standoff Mine Detection System

Other
- Intelligent Munitions System (IMS)
- Quicklook
- Air Standoff Mine Detection System (ASTAMIDS)
- Objective Crew Served Weapon (OCSW)
Summary – The Ammunition Enterprise is …

- Supporting Current Operations/Planning Future
- Improving Ammunition Life-Cycle Practices
- Focused, Well-Trained Workforce
- Leveraging World Class Capabilities & Technologies
- Vital to the development of products for the Future Joint Force