

# Program Executive Office Ammunition



**26-28 April 2004**

**Presented By:**  
**Ms. Robin Gullifer**  
Associate PEO, Ammunition – Program Management

**Presented To:**  
**NDIA Fuze Conference**

# THE HIGHEST CALIBER

We make the ammo...  
You make the difference





# PEO Ammo

## *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**



John Moore / AP

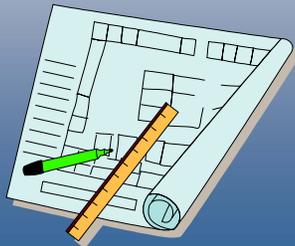


# Where We Are Today

## ➤ 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                      PEO  
Mr. Kevin Fahey                DPEO



**Industrial Base**  
Mr. Matt Zimmerman  
APEO Industrial Base

**Washington, D.C.  
Liaison Team**



**Close Combat Systems**  
Mr. Jim Sutton      PM



**Combat Ammo Systems - Indirect Fire**  
COL Nate Sledge      PM



**Maneuver Ammo System - Direct Fire**  
Mr. Bill Sanville      PM



**Joint Services**  
COL Jeff Gwilliam      PM

Networked Munitions/  
Munitions /  
Countermine

Demolitions /  
Non-Lethal

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 People Managed  
725 at Picatinny

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

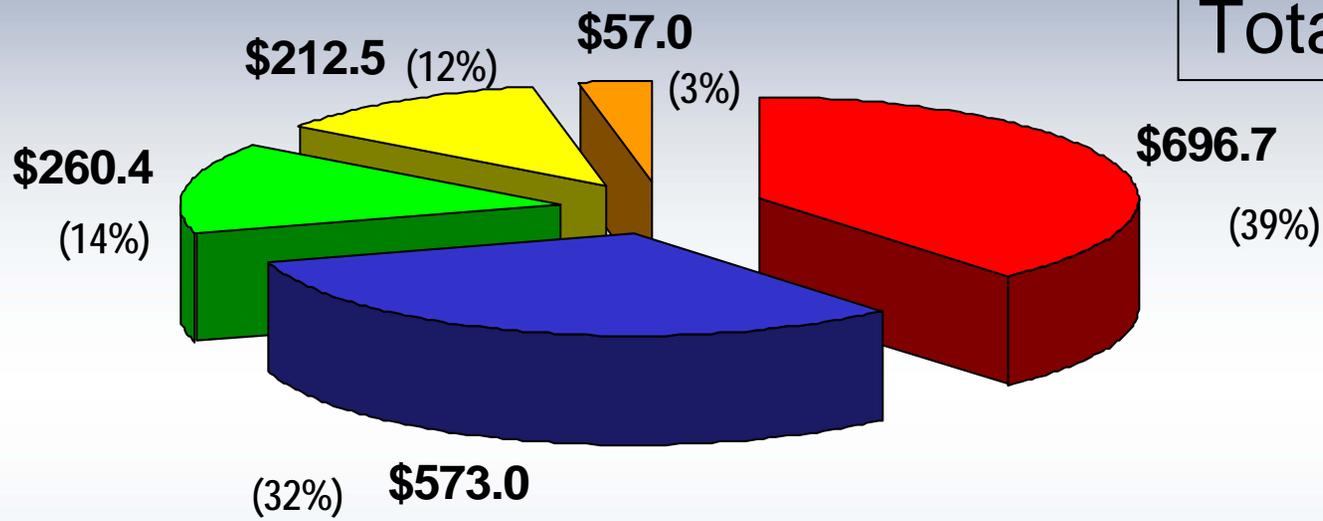
Total RDA Programs  
191 programs

Total Dollars  
\$1,799.6 M



# RDA FY 04 PEO Ammo Budget Total

Total: \$1,799.6M



Source: FY05 PB

- PM Combat Ammunition Systems**
  - Artillery Ammunition RDTE \$184,067
  - Artillery Fuze WTCV \$10,027
  - Mortar OPA \$39,224
  - Ammo \$339,633

- PM Maneuver Ammunition Systems**
  - Large Caliber
  - Medium Caliber RDTE \$26,521
  - Small Caliber Ammo \$670,148

- PM Joint Services**
  - Industrial Base/Facilities RDTE \$30,937
  - Demil Ammo \$181,626

- PM Close Combat Systems**
  - Mines, Countermine & Demolition RDTE \$133,615
  - OPA \$17,884
  - Ammo \$108,881
- PEO Ammo**
  - RDTE \$31,595
  - Ammo \$25,446



# 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”*



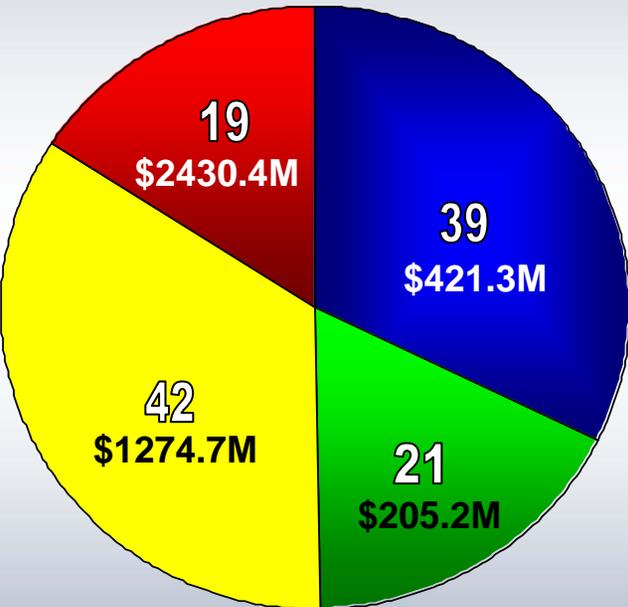
# Section 806 Summary

## Procurement Approach Distributions

### Section 806:

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

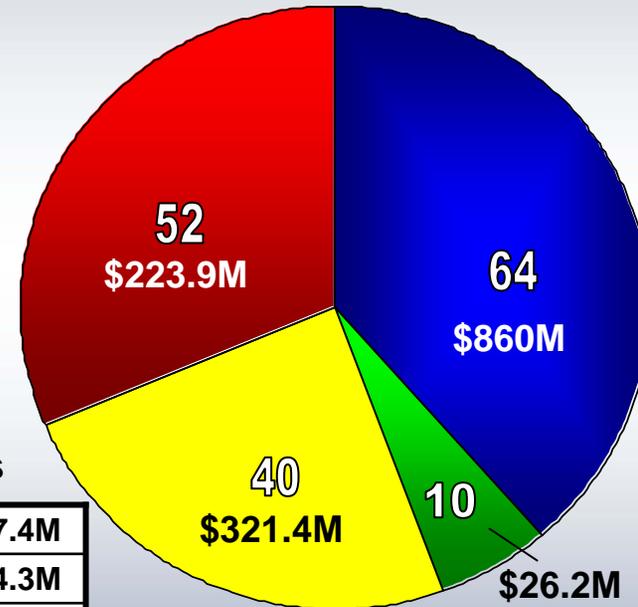
### FY03 Procurements



### FY03 Sec 806s

|              |            |                  |
|--------------|------------|------------------|
| Army         | 34         | \$1689.7M        |
| USN          | 61         | \$435.1M         |
| USMC         | 3          | \$19.4M          |
| USAF         | 14         | \$2187.4M        |
| <b>TOTAL</b> | <b>112</b> | <b>\$4331.6M</b> |

### FY04 Procurements



### FY04 Sec 806s

|              |            |                  |
|--------------|------------|------------------|
| Army         | 98         | \$377.4M         |
| USN          | 17         | \$24.3M          |
| USMC         | 24         | \$19.9M          |
| USAF         | 27         | \$1009.9M        |
| <b>TOTAL</b> | <b>166</b> | <b>\$1431.5M</b> |

•PEO Ammo Delegated Section 806 Authority Nov 02

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



# Close Combat Systems Mission

Equip Soldiers with Close Combat Systems for:

## Assured Mobility

Intelligent Munitions System  
 Anti-Personnel Landmine  
 Alternative (APLA)  
 Countermine  
 Demolitions

## Force Protection

APLA  
 Countermine  
 Non-Lethal  
 Pyro/Flares  
 EOD Equipment

## Close Battle

Hard Target Defeat  
 Demolitions  
 Hand Grenades  
 Non-Lethal  
 Pyro/Flares



SBCT Volcano

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



AN/PSS-14  
 Mine Detecting Set (HSTAMIDS)



M67 Hand Grenade



Selectable Lightweight  
 Attack Munition



Non-Lethal Capability Set



# Close Battle Feedback

## Shoulder Launched Munitions



**"An Awesome Weapon!  
My Only Regret Is That We Could Not Carry  
Enough Of Them!"**  
– **NCO 10th Mountain Division, Oct 03**

**"Using the NL  
claymores at a  
rate of 1 every two  
days at the POW  
camps to prevent  
escapes and  
riots." -800<sup>th</sup> 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

|   |                                       |  |
|---|---------------------------------------|--|
| <p>LCCM    795 E1    Excalibur Discriminating</p> | <p>M782 MOFA    Excalibur Unitary</p> | <p>M1155 PIAFS    105mm M1 HE    105mm M314A3 Illum    105mm M915 DPICM    155mm M795 HE Projectile    155mm M107 HE    155mm M804A1 Practice    Time M767    MOUT MK399 MOD1    75mm M337A2 Blank    M782 MOFA    M762 ET    155mm M231/M232 Prop</p> |
| <p><b>Concept</b></p>                             | <p><b>Development</b></p>             | <p><b>Production</b></p>   |

## Mortars

|                          |  |   |  |
|--------------------------|--|---|--|
| <p>120mm XM984 DPICM</p> | <p>(MFCS) Heavy    120mm Training Insert, M303    MBC    Mortar Fire Control System - Light (MFCS-L)    120mm XM395 (PGMM)</p> | <p>60mm M769 FRPC    81mm M853A1 Illum    120mm M983 IR</p> | <p>60mm M720A1 HE    81mm M821A1/M889 A1 HE    120mm M934 HE</p> |
| <p><b>Concept</b></p>    | <p><b>Development</b></p>  | <p><b>Production</b></p>                                    | <p><b>Sustainment</b></p>  |



# Mortars in Battle

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



**“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, 75<sup>th</sup> Ranger Regiment in support Operations In Afghanistan, 2002**

**“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. 4<sup>th</sup> BN, 64<sup>th</sup> Armored Regiment, 3ID Operation Iraqi Freedom, 2003**



# PM Maneuver Ammunition Systems



KE-WA2

M829A3

M829A2

XM1002

XM908

M830A1

XM1028

MRM

XM1040

M393A3

M467A1



# 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**



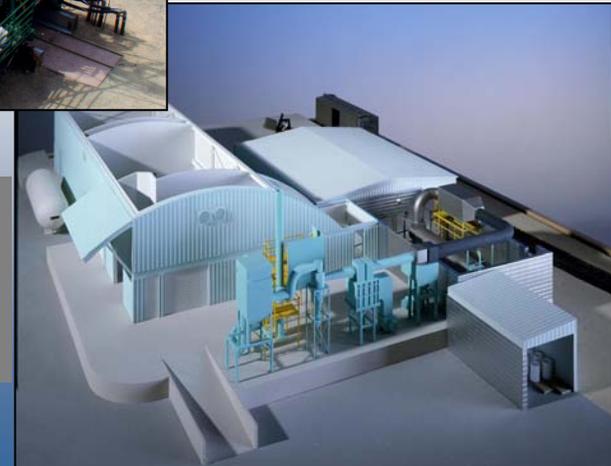


# Demilitarization

**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

Quarterly Meetings  
Bi-Weekly Telecons



## Integrated Product Team

- |           |           |                |           |            |
|-----------|-----------|----------------|-----------|------------|
| •PEO      | •AMC      | •Army G3/G4/G8 | •USMC     | •ACSIM/AEC |
| - Ammo    | •JMC      | •OUSD(AT&L)    | •USAF     | •DCMA      |
| -Tact Mis | •ARDEC    | •GSA           | •USN      | •CMA       |
| •PMs      | •Industry | •ASA(ALT)      | •ASA(I&E) |            |

## 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



# Industrial Base Strategic Plan

**7 Overarching  
Strategies**

**30 Tactical  
Strategies**

## 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.

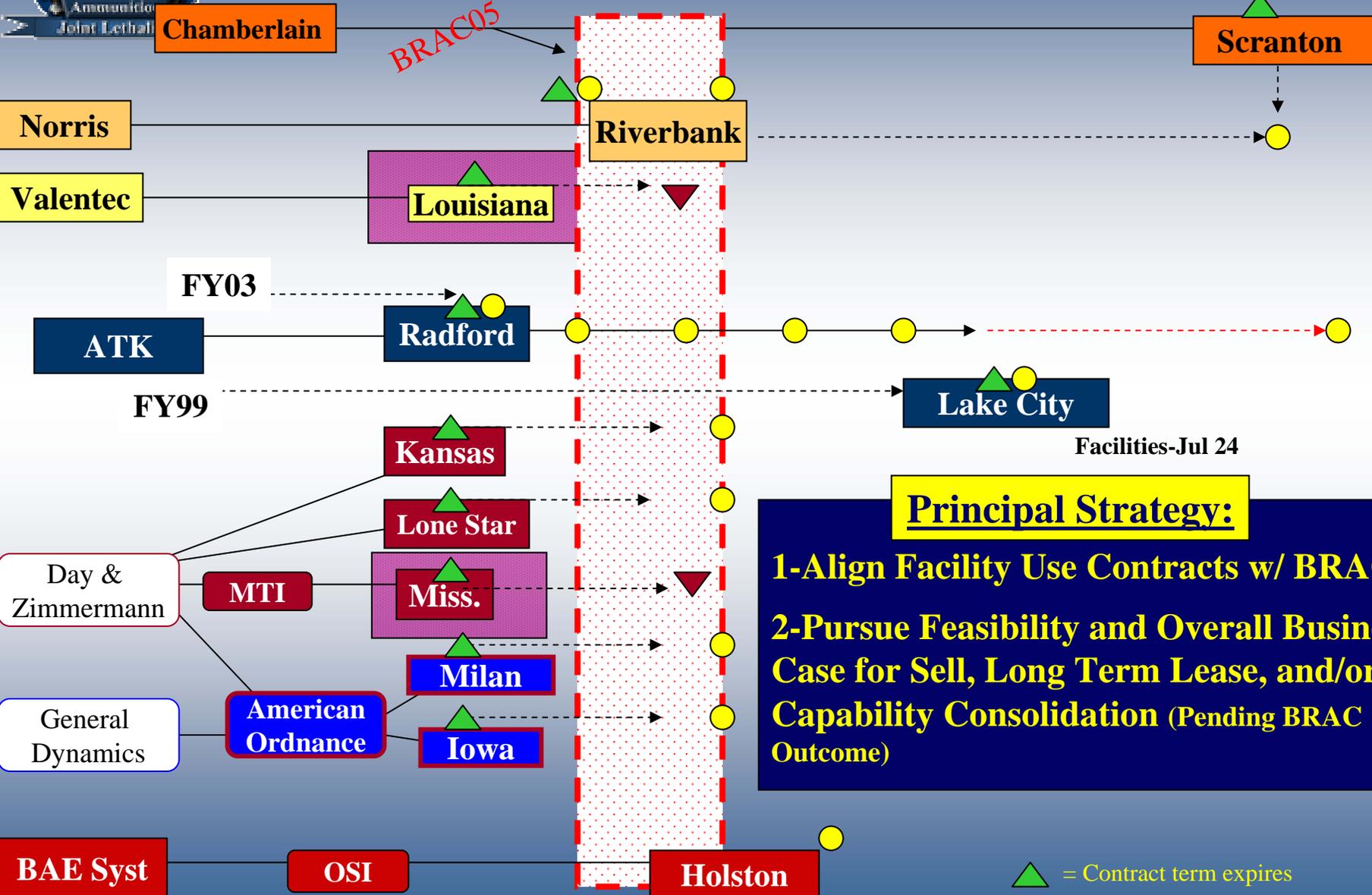
**Outlines Goals and Tactics to Shape the Industrial Base**





# GOCO Production Base Outlook

FY04 FY05 FY06 FY07 FY08 FY09 FY10 FY11 FY12



FY03

FY99

Facilities-Jul 24

**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)

Facilities-Jun 23

▲ = Contract term expires

● = Decision or actionable point



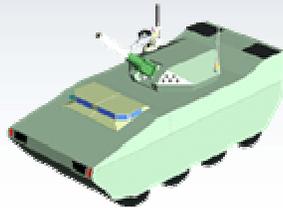
# Ammunition in support Family of Combat Systems

120mm Line of Sight (LOS)/  
Beyond Line of Sight (BLOS)  
Mounted Combat  
System (MCS)



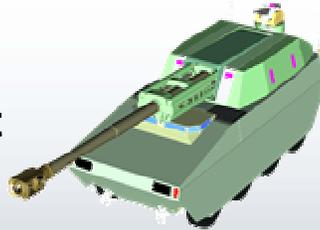
- Mid-Range Munition (MRM)
- Advanced Kinetic Energy (KE)
- Advanced Multi-Purpose Anti-Tank (MPAT)
- Lt Wt 120mm Cannon

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





PEO  
Ammunition

Joint Lethality

