



Single Manager for Conventional Ammunition (SMCA)

Industrial Base Strategic Plan: 2015

3 November 2003
(Update November 2004)

Program Executive Office Ammunition
SFAE-AMO
Picatinny, NJ 07806-5000

Single Manager for Conventional Ammunition (SMCA)

Industrial Base Strategic Plan: 2015



A handwritten signature in black ink, appearing to read "Paul S. Izzo".

PAUL S. IZZO
Brigadier General, USA
Program Executive Officer Ammunition

A handwritten signature in black ink, appearing to read "R. M. Radin".

ROBERT M. RADIN
Brigadier General, USA
Commanding
Joint Munitions Command

Table of Contents

Volume A

1.0 Introduction	
Purpose	A-1
Mission	A-1
SMCA Industrial Base IPT Membership	A-1
Industrial Base Definition	A-2
Vision	A-2
Overarching Strategies	A-2
Industrial Base Strategic Goals and Objectives	A-2
2.0 Strategic Goals, Objectives, Outcomes, Strategies and Performance Measures	A-4
3.0 Army Ammunition Plants and Depots	
AAP Overarching Strategies	A-12
AAP Strategies	A-13
Army Ammunition Depots	A-17
4.0 General Contract Strategies by Ammunition Family	A-18
5.0 Financial Condition	
FY04-FY11 PEO Ammunition Funding	A-19
FY90-FY05 Production Base Support Funding Chart	A-20
FY03-FY11 Production Base Support Funding	A-21
6.0 Army Acquisition Logistics and Technology Magazine Article	A-22
7.0 References	A-27
8.0 Acronyms	A-28

Volume B

1.0 Methodology	
2.0 Requirements	
3.0 Deficiencies & Single Point Failures	
4.0 Requirements vs. Capabilities/Technologies Assessment	
5.0 Capacity Utilization Analysis	
6.0 GOCO Operational Costs	
7.0 Laws and Regulations	

Volume C

Divestiture Process	
---------------------	--

Appendices



Single Manager for Conventional Ammunition (SMCA)

Industrial Base Strategic Plan: 2015

Volume A

1.0 Introduction

Purpose

The purpose of the Single Manager for Conventional Ammunition (SMCA) Industrial Base Strategic Plan is to establish a management framework for posturing the ammunition logistics and production supply chain to effectively and efficiently respond to current and future conventional ammunition requirements.

Mission

PEO Ammunition and Joint Munitions Command:

- Develop and procure conventional and leap-ahead munitions to provide full spectrum combat power to Joint Warfighters.
- Manage and distribute conventional ammunition to the Joint Warfighter.
- Provide integrated supply chain management of the ammunition production and logistics base.
- Optimize planning, coordination and decision making that affects the preparedness of the National Technology and Industrial Base (NTIB).

SMCA Industrial Base Integrated Product Team Membership

ACSIM/AEC
Air Force
AMC HQ
ARDEC
ASA(ALT)
ASA(I&E)
CMA
DCMA
GSA
HQDA G3
HQDA G4
HQDA G8

Joint Munitions Command
Marine Corps
Munitions Industrial Base Task Force
Navy
OUSD(AT&L)
PEO Ammunition
PEO Tactical Missiles
PM Aviation Rockets and Missiles
PM Close Combat Systems (CCS)
PM Combat Ammunition Systems (CAS)
PM Maneuver Ammunition Systems (MAS)

Industrial Base Definition

For the purpose of this document, the industrial base consists of both production (organic and commercial) and logistics capabilities.

Vision

“A Responsive, Innovative, Effective and Efficient Manufacturing and Logistics Base, Capable of Meeting National Security Requirements While Preserving Critical Core Competencies and Relying to the Maximum Practical Extent on Competition and Private Ownership.”

Overarching Strategies

1. Near- and long-term warfighter requirements will shape the overall conventional ammunition acquisition and logistics strategies.
2. Acquisitions will posture and sustain the production base and support the ammunition logistics strategy.
3. Acquisitions and investments will be synchronized to ensure that required manufacturing and logistics capabilities remain available and viable.
4. Industrial base considerations will be factored into the acquisition process.
5. The industrial base infrastructure will be sized to maximize operating efficiencies and to reflect Defense Planning Guidance and economic realities.
6. Private industry, as the principal ammunition supplier, will be provided incentives for investing in and sustaining the production base.
7. Systems acquisition will be utilized to the maximum extent practicable.
8. Identify and implement opportunities for greater joint service activities.
9. Combatant Commander and Service ammunition requirements and distribution efficiency will drive the size and shape of the ammunition logistics base.

Industrial Base Strategic Goals and Objectives

Goal 1. Balance industrial base & acquisition management risk.

Objective 1.1.a: Ensure critical core competencies and capabilities are available to meet requirements.

- Objective 1.1.b: Balance cost, schedule and performance with need to have capability.
- Objective 1.1.c: Establish right-sized ammunition industrial base.

Goal 2. Transform to meet current and future requirements.

- Objective 2.1.a: Optimize acquisition planning, industrial base preparedness, and logistics capabilities to support Joint and Expeditionary Warfighting requirements.
- Objective 2.1.b: Reduce GOCO/GOGO conventional ammunition facility operating costs/footprint and dispose of excess capacity.
- Objective 2.1.c: Develop and ensure manufacturing/logistics capability and readiness.
- Objective 2.1.d: Determine effective replenishment requirements definition and strategy.

Goal 3. Incentivize industry to reinvest in capital equipment and processes.

- Objective 3.1.a: Increase industry investment in equipment and facilities.
- Objective 3.1.b: Maintain a financially viable industrial base.

Goal 4. Modernize required manufacturing and logistics capacity.

- Objective 4.1.a: Increase manufacturing and logistics readiness to meet current and future requirements.

Goal 5. Operate effectively and efficiently.

- Objective 5.1.a: Reduce ammunition life cycle costs.
- Objective 5.1.b: Maximize customer satisfaction.
- Objective 5.1.c: Reduce response time in providing ammunition to the Joint Warfighter.
- Objective 5.1.d: Understand condition and posture of the ammunition production and logistics base.
- Objective 5.1.e: Automate industrial base planning and processes.
- Objective 5.1.f: Maintain open communications with all Services and Industry.

2.0 Strategic Goals, Objectives, Outcomes, Strategies and Performance Measures

Strategic Goal #1: Balance Industrial Base & Acquisition Management Risk

1.1 Objectives	1.2 Outcomes	1.3 Strategies	1.4 Performance Measures
<p>a. Ensure critical core competencies and capabilities are available to meet requirements.</p> <p>b. Balance cost, schedule and performance with need to have capability.</p> <p>c. Establish right-sized ammunition industrial base.</p>	<p>a. Industrial base is prepared to respond to all requirements (production and logistics).</p> <p>b. Increased industrial base stability.</p> <p>c. Improved surge capabilities.</p> <p>d. Possible increase in ammunition unit price in order to sustain NTIB capabilities.</p>	<p>a. Synchronize ammunition procurements to maintain the required manufacturing and logistics capabilities and capacities. Define structured decision process to facilitate synchronizing.</p> <p>b. Partner with Industry and academia to assist in advancing the state of manufacturing readiness.</p> <p>c. Define and require an Industrial Base Readiness Assessment in all Acquisition Plans and Acquisition Strategies.</p> <p>d. Effectively implement Section 806, Public Law 105-261.</p> <p>e. Pursue feasibility and overall Business Case for GOCO AAP Sell, Long Term Lease, and/or Consolidation focusing on preserving critical capabilities and reducing costs. (Pending BRAC Outcome)</p> <p>f. Use Science Based Production and prototyping as principal means for attaining surge capabilities and emergency requirements.</p> <p>g. Ensure core capabilities and skills are available to support the logistics readiness mission.</p>	<p>(1) Munitions Readiness Ratings.</p> <p>(2) Utilized capacity and footprint.</p> <p>(3) GOCO/GOGO operating costs.</p> <p>(4) Strategic outload capabilities (facilitization, staffing, skills).</p>

Strategic Goal #2: Transform to Meet Current and Future Requirements

2.1 Objectives	2.2 Outcomes	2.3 Strategies	2.4 Performance Measures
<p>a. Optimize acquisition planning, industrial base preparedness, and logistics capabilities to support Joint and Expeditionary Warfighting requirements.</p>	<p>a. Increased planning efficiencies.</p> <p>b. Increased awareness of industrial base condition.</p> <p>c. Focused investments.</p> <p>d. Enhanced munitions readiness.</p> <p>e. Enhanced ability to meet strategic outload requirements.</p>	<p>a. Establish an Integrated Data Environment process and centralized industrial base database. Assessment tool will include requirements, suppliers, capacities, deficiencies, production schedules, stockpile, metrics and “what-if” report generation.</p> <p>b. Implement Logistics Modernization Program (LMP).</p> <p>c. Fully implement Centralized Ammunition Management (CAM).</p>	<p>(1) Percentage of acquisition strategies/ plans utilizing industrial base assessment tool for planning.</p> <p>(2) Munitions Readiness Ratings.</p> <p>(3) Trend of Single Point Failure Condition.</p> <p>(4) LMP Deployment Schedule.</p> <p>(5) Meet Combatant Command OPLAN requirements.</p> <p>(6) Correct positioning of stocks to meet peacetime and wartime requirements.</p>
<p>b. Reduce GOCO/ GOGO conventional ammunition facility operating costs/ footprint and dispose of excess capacity.</p>	<p>f. Long term reduction in GOCO/GOGO operating costs, cost of ammunition, and PAA funding requirements.</p> <p>g. More ammunition resources directed towards producing product and logistics sustainment.</p> <p>h. Reduced Army involvement in facility management.</p>	<p>d. Pursue feasibility and overall Business Case for GOCO AAP Sell, Long Term Lease, and/or Consolidation focusing on preserving critical capabilities and reducing costs. (Pending BRAC Outcome and IAW Secretary of the Army March 2003 industrial base transformation guidance). For “sell” divestiture scenarios, the contractor will be required to maintain critical ammunition production capability for approximately 5 years. SMCA will ensure a level of production at the facility for a set period. Govern-</p>	<p>(7) GOCO/GOGO operating costs.</p> <p>(8) Utilized capacity and footprint.</p> <p>(9) Unit Cost trends for critical ammunition end items.</p>

Strategic Goal #2: Transform to Meet Current and Future Requirements
(continued)

2.1 Objectives	2.2 Outcomes	2.3 Strategies	2.4 Performance Measures
c. Develop and ensure manufacturing/logistics capability and readiness.	i. Increased preparedness to meet future ammunition requirements. j. Established logistics industrial preparedness planning.	<p>ment will be responsible for environmental remediation.</p> <p>e. Divest Industrial Base of non-value added, unutilized production equipment and utilize revenue for advancing manufacturing technology capability, environmental remediation, and reducing organic base operating costs.</p> <p>f. Establish robust manufacturing technology RDT&E and PAA funding lines focused on advancing cross-family manufacturing capabilities and increasing affordability.</p> <p>g. Utilize Science Based Production (SBP) management and knowledge transfer to ramp-up capability and/or capacity. Alternative strategy to Lay-away of facilities/equipment.</p> <p>h. Integrate Joint Munitions Centers to reduce overall infrastructure by conducting production, storage, receipt, issue, maintenance, R3 and demilitarization activities at fewer multiple use facilities than currently used.</p> <p>i. Develop storage and outloading definitions and associated requirements and processes to plan and meet these demands.</p>	<p>(10) Army manufacturing modernization investments.</p> <p>(11) Munitions Readiness ratings.</p> <p>(12) Logistics critical skills and capability sustainment assessments.</p> <p>(13) Strategic outload capabilities (facilitization, staffing, skills).</p>
d. Determine effective replenishment requirements definition and strategy.	k. Increased industrial base planning efficiencies. l. Established basis for production base support investments.	j. Develop a replenishment definition and associated requirements process to increase planning and industrial base sizing consistencies.	(14) Existence and clarity of replenishment definition.

Strategic Goal #3: Incentivize Industry to Reinvest in Capital Equipment and Processes

3.1 Objectives	3.2 Outcomes	3.3 Strategies	3.4 Performance Measures
<p>a. Increase industry investment in equipment and facilities.</p>	<p>a. Increased supply chain readiness.</p> <p>b. Improved quality.</p> <p>c. Increased competitiveness and innovation.</p> <p>d. Increased operating efficiencies.</p>	<p>a. Award incentive production contracts that match government funds for contractor investment in capital equipment and processes.</p> <p>b. Facilitate use of Science Based Production modeling and process controls.</p> <p>c. Offer Government owned equipment (currently in layaway status) for supplier use.</p> <p>d. Initiate a Manufacturing Modernization Loan Program to provide low interest rates to the ammo supply chain.</p> <p>e. Promote long term relationships/partnerships with Industry to include GOCOs and GOGOs.</p>	<p>(1) Industry investment applied to modernizing manufacturing processes, equipment and facilities.</p>
<p>b. Maintain a financially viable industrial base.</p>	<p>e. Increased supply chain readiness.</p> <p>f. Improved quality at reduced cost.</p> <p>g. Increased innovation.</p> <p>h. Reduced acquisition risk.</p>	<p>f. Establish multi-year contracting strategies by ammo family.</p> <p>g. Explore and implement indemnification on a selected basis.</p> <p>h. Selectively promote ARMS initiatives and identify projects for production modernization and transformation.</p>	<p>(2) Number of suppliers in high risk financial condition.</p> <p>(3) Financial viability of Suppliers of our Critical Core Capabilities.</p>

Strategic Goal #4: Modernize Required Manufacturing and Logistics Capacity

4.1 Objectives	4.2 Outcomes	4.3 Strategies	4.4 Performance Measures
<p>a. Increase manufacturing and logistics readiness to meet current and future requirements.</p>	<p>a. Increased responsiveness to future requirements.</p> <p>b. Increased operating efficiencies.</p> <p>c. Reduced off-shore reliance.</p> <p>d. Reduced vulnerability to single point failures.</p>	<p>a. Identify, consolidate and prioritize production deficiencies in the organic and commercial sectors, aligning priorities with the Joint Warfighter needs.</p> <p>b. Establish robust manufacturing and logistics modernization funding lines.</p> <p>c. Modernize ammunition production and distribution facilities.</p> <p>d. Establish Science Based Production methodologies at critical Single Point Failure locations and transfer prototyping knowledge/capabilities to industry.</p> <p>e. Integrate into ammunition contracts a percentage required for capital improvement initiatives with contractor matching.</p> <p>f. Leverage and coordinate MANTECH and RDT&E from all Services.</p>	<p>(1) Munitions Readiness Ratings.</p> <p>(2) Manufacturing Readiness Levels for future munitions.</p> <p>(3) Army and Industry's manufacturing modernization investments.</p> <p>(4) Number of Single Point Failures adopting Science Based Production methodologies.</p>

Strategic Goal #5: Operate Effectively and Efficiently

5.1 Objectives	5.2 Outcomes	5.3 Strategies	5.4 Performance Measures
<p>a. Reduce ammunition life cycle costs.</p> <p>b. Maximize customer satisfaction.</p> <p>c. Reduce response time in providing ammunition to the Joint Warfighter.</p>	<p>a. Reduced operating and product costs.</p> <p>b. Increased funding available for hardware buys.</p> <p>c. Increased industrial base (production and logistics) readiness.</p> <p>d. Increased customer satisfaction.</p>	<p>a. Incentivize the implementation of 6 Sigma, Lean and other Best Business Practices in SMCA processes and at key Government and Commercial suppliers.</p> <p>b. Pursue feasibility and overall Business Case for GOCO AAP Sell, Long Term Lease, and/or Consolidation focusing on preserving critical capabilities and reducing costs. (Pending BRAC Outcome)</p> <p>c. Promote/incentivize contractors to pursue State-based, self-help programs among ammo suppliers; e.g., ISO, Baldrige, 6 Sigma.</p> <p>d. Promote commonality of components across/within ammo families.</p> <p>e. Level and consolidate procurement buys to the maximum extent practicable.</p> <p>f. Fully implement CAM.</p>	<p>(1) Percentage of identified inefficiencies that have been corrected.</p> <p>(2) Utilized capacity and footprint.</p> <p>(3) Customer satisfaction survey ratings.</p> <p>(4) Munitions Readiness Ratings.</p> <p>(5) Number of 6-Sigma projects implemented and associated Value Engineering savings.</p> <p>(6) Meet Combatant Command OPLAN requirements.</p> <p>(7) Correct positioning of stocks to meet peacetime and wartime requirements.</p>

Strategic Goal #5: Operate Effectively and Efficiently (continued)

5.1 Objectives	5.2 Outcomes	5.3 Strategies	5.4 Performance Measures
d. Understand condition and posture of the ammunition production and logistics base.	e. Definition and characterization of the ammunition production and logistics base. f. Quantified metrics to measure effectiveness of future initiatives.	g. Baseline, characterize and monitor the state of the industrial base supply chain. h. Utilize JMC production base readiness measurement scheme to characterize risk of industrial base to meet requirements. i. Identify and benchmark best practices in production, logistics and facility management.	(8) Percentage of baseline metrics collected. (9) Munitions Readiness Ratings. (10) Strategic outload capabilities (facilitization, staffing, skills).
e. Automate industrial base planning and processes.	g. Improved decision making. h. Increased industrial base preparedness.	j. Develop and implement an Industrial Base Integrated Data Environment (IDE) focusing on a web-based assessment tool & report generation system that captures production data, stockpile condition, requirements and specific industrial base metrics. k. Develop storage and outloading definitions and associated requirements/processes to plan and meet these demands.	(11) Percentage of Production Base Plan converted to IDE. (12) Establishment and completion of the Logistics Industrial Base Plan.
f. Maintain open communications with all Services and Industry.	i. Increased customer and supply chain satisfaction.	l. Ensure Services, Industry and industrial/logistics base Commanders participate in strategic planning activities. m. Actively participate in Industry organizations and events; e.g., NDIA, MIBTF, ICAP, JOCG, etc.	(13) Number of annual meetings with Industry and Services. (14) Customer satisfaction survey.

Execution strategies for production were prioritized and coupled to the five strategic goals using pairwise comparison and computer automated Analytical Hierarchy Process developed by the University of Pennsylvania's Wharton Business School. The matrix below represents prioritization from the February 2004 SMCA Industrial Base IPT meeting.

Rank	Cross Ref. #	Strategic Initiatives	Strategic Value	Transform to Meet Current and Future Requirements (G:.288)	Modernize Utilized Manufacturing Capacity (G:.098)	Balance Industrial Base and Acquisition Mgt Risk (G:.406)	Operate Efficiently and Effectively (G:.070)	Incentivize Industry to Reinvest in Capital Equipment and Processes (G:.139)
1	3.3.e	Establish multi-year contracting strategies by ammo family.	0.886	0.93	0.87	0.86	0.81	0.93
2	5.3.k	Ensure Services and Industry participate in strategic planning activities.	0.849	0.93	0.76	0.84	0.73	0.83
3	2.3.e	Develop a replenishment definition and associated requirements process to increase planning and industrial base sizing consistencies.	0.813	0.97	0.73	0.77	0.74	0.70
4	1.3.a	Synchronize ammunition procurements to maintain the required manufacturing capabilities and capacities. Define structured decision process to facilitate synchronizing.	0.811	0.83	0.71	0.87	0.69	0.73
5	3.3.f	Promote long term relationships/partnerships with Industry.	0.807	0.84	0.77	0.77	0.76	0.89
6	4.3.b	Establish robust manufacturing modernization funding lines.	0.761	0.87	0.83	0.70	0.66	0.71
7	3.3.d	Initiate a Manufacturing Modernization Loan Program to provide low interest rates to the ammo supply chain.	0.695	0.77	0.74	0.60	0.60	0.83
8	5.3.g	Level and consolidate procurement buys to the maximum extent practicable.	0.690	0.60	0.67	0.71	0.70	0.81
9	4.3.a	Identify, consolidate and prioritize production deficiencies in the organic and commercial sector, aligning priorities with the PM's needs.	0.678	0.71	0.73	0.70	0.63	0.53
10	5.3.l	Actively participate in Industry organizations and events; e.g., NDIA, MIBTF, etc.	0.674	0.70	0.63	0.70	0.51	0.66
11	5.3.c	Identify operating inefficiencies and formulate corrective actions.	0.647	0.73	0.71	0.60	0.79	0.50
12	1.3.d	Effectively Implement Section 806, Public Law 105-261.	0.635	0.67	0.61	0.59	0.59	0.74
13	1.3.f	Use Science Base Production and prototyping as principal means for attaining surge capabilities and emergency requirements.	0.620	0.67	0.70	0.60	0.54	0.56
14	4.3.d	Integrate into ammunition contracts a percentage required for capital improvement initiatives with contractor matching.	0.615	0.64	0.73	0.50	0.53	0.86
15	1.3.b	Partner with Industry and academia to assist in advancing the state of manufacturing readiness.	0.601	0.73	0.64	0.53	0.47	0.59
16	5.3.f	Promote commonality of components across/within ammo families.	0.584	0.63	0.47	0.54	0.66	0.66
17	2.3.f	Establish an Integrated Data Environment process and centralized industrial base database. Assessment tool will include requirements, suppliers, capacities, deficiencies, production schedules, stockpile, metrics and "what-if" report generation.	0.567	0.69	0.50	0.60	0.51	0.30
18	2.3.d	Utilize Science Base Production (SBP) management and knowledge transfer to ramp-up capability and/or capacity. Alternative strategy to Lay-away of facilities/equipment.	0.559	0.77	0.59	0.46	0.53	0.41
19	3.3.h	Selectively promote ARMS initiatives and identify projects for production modernization and transformation.	0.557	0.60	0.56	0.47	0.56	0.71
20	1.3.c	Define and require an Industrial Base Readiness Assessment into all Acquisition Plans and Acquisition Strategies.	0.543	0.50	0.47	0.67	0.50	0.33
21	5.3.a	Implement 6 Sigma, Lean and other Best Business Practices in SMCA processes and at key Government and Commercial suppliers.	0.535	0.63	0.57	0.49	0.71	0.37
22	5.3.i	Identify and benchmark best practices in production, logistics and facility management.	0.530	0.57	0.49	0.53	0.66	0.41
23	1.3.e	Pursue feasibility and Overall Business Case for GOCO AAP Sell, Long Term Lease, and/or Consolidation focusing on preserving critical capabilities and reducing costs. (Pending BRAC outcome)	0.529	0.64	0.57	0.46	0.44	0.51
24	4.3.c	Establish Science Based Production methodologies at critical Single Point Failure locations and transfer prototyping knowledge/capabilities to Industry.	0.520	0.76	0.56	0.40	0.43	0.40
25	4.3.e	Leverage and coordinate Mantech and RDT&E from all Services.	0.510	0.67	0.50	0.50	0.41	0.26
26	5.3.h	Baseline, characterize and monitor the state of the industrial base supply chain. Utilize JMC production base readiness measurement scheme to characterize risk of industrial base to meet requirements.	0.491	0.56	0.46	0.53	0.51	0.26
27	3.3.c	Offer Government owned equipment (currently in layaway status) for supplier use.	0.431	0.53	0.44	0.39	0.46	0.34
28	3.3.g	Explore and implement indemnification on a selected basis.	0.391	0.44	0.27	0.39	0.30	0.43
29	5.3.e	Promote/incentivize contractors to pursue State-based, self-help programs among ammo suppliers; e.g., ISO, Baldrige, 6 Sigma.	0.369	0.23	0.44	0.39	0.63	0.43
30	2.3.b	Sell non-value added, unutilized production equipment and utilize revenue for advanced manufacturing technology capability, environmental remediation, and reducing AAP operating costs.	0.363	0.53	0.34	0.23	0.47	0.37

3.0 Army Ammunition Plants and Depots

AAP Overarching Strategies

1. No GOCO AAP consolidation or divestiture implementation other than as part of the FY2005 Base Realignment and Closure Process (BRAC) without Secretary of the Army approval. For all GOCO AAPs, pursue feasibility and overall Business Case for GOCO AAP Sell, Long Term Lease, and/or Consolidation focusing on preserving critical capabilities and reducing costs. (Pending BRAC Outcome)
2. Reduce Army Ammunition Plant Cost-of-Ownership.
3. Reduce excess physical capacity and infrastructure.
4. Identify and implement opportunities for greater joint service activity.

AAP Strategies

Facility/ Contract	Salient Capabilities	FY04-06 (Adjust following May 05 BRAC List)	FY07-11
Holston Dec 02 (S) Jun 23 (FU)	RDX/HMX Explosives; Large Volume Acid Handling.	<p>FY04/05: Test Case: Pursue feasibility of Sell Excess to Ownership/Long Term Lease.</p> <p>Develop and implement cost reduction plan.</p> <p>Reduce MIF/LIF.</p> <p>Reduce \$10M/Yr subsidy.</p> <p>Explore business case for consolidation with Radford.</p> <p>Increase ARMS initiatives to reduce overhead.</p>	<p>FY08: Supplies Contract Renewal.</p> <p>Eliminate \$10M/Yr subsidy.</p> <p>FY07/09: Sell Excess to Ownership, Long Term Lease or consolidate as determined by best business case.</p>

Facility/ Contract	Salient Capabilities	FY04-06 (Adjust following May 05 BRAC List)	FY07-11
Iowa Sep 03 (FU)	Tank/Artillery/ Missile War- head LAP; HE Melt Pour; Shape Charge Press; FASCAM LAP.	<p>FY04: Develop and implement cost reduction plan.</p> <p>Reduce MIF/LIF.</p> <p>Assess feasibility of consolidating capability to other AAP.</p> <p>FY06: Pursue business case per overarching strategies.</p>	Maintain capability IAW FY06 outcome.
Kansas Sep 03 (FU)	Sensor Fuzed Weapon LAP; Initiating/Pyro Explosives Loading; Mortar/Gre- nade LAP/ Artillery LAP.	<p>FY04: Reduce MIF/LIF.</p> <p>Assess feasibility of consolidating capability with Lone Star or other AAP.</p> <p>FY06: Pursue business case per overarching strategies.</p>	Maintain IAW FY06 outcome.
Lake City Sep 09 (S) Jul 24 (FU)	High Volume Small Cal Metal Parts and LAP; Links.	<p>FY04-FY06: Test Case: Pursue feasibility of Sell Excess to Ownership/Long Term Lease.</p> <p>Pursue business case per overarching strategies.</p>	<p>FY09: Sell Excess to Owner- ship, Long Term Lease or continue with existing Facilities Use contract with Supplies contract.</p>

Facility/ Contract	Salient Capabilities	FY04-06 (Adjust following May 05 BRAC List)	FY07-11
Lone Star Aug 03 (S,FU)	Detonators/ Initiating Explo- sives Loading; Grenade LAP; FASCAM LAP.	<p>FY04: Reduce MIF/LIF.</p> <p>Develop and implement cost reduction plan.</p> <p>Assess feasibility of consolidating capability with Kansas or another LAP AAP.</p> <p>FY06: Pursue business case per overarching strategies.</p>	Maintain capability IAW FY06 outcome.
Louisiana Jun 03 (FU)	Large Cal Metal Parts; Long Stroke, Hi Tonnage Pressing.	<p>FY05: Excess to Need via BRAC 05.</p> <p>Sell Excess to Need with no condition to maintain capability.</p> <p>Move Long Sroke Presses and parts to Scranton AAP, ARDEC, OGA or industry partner.</p>	
Milan Sep 03 (S,FU)	40mm Grenade LAP; Fuze LAP; Artillery Mortar HE Melt Pour; C4 Extrusion.	<p>FY04/05: Develop and implement cost reduction plan.</p> <p>Reduce MIF/LIF.</p> <p>Assess feasibility of consolidating capability to another AAP.</p> <p>FY06: Pursue business case per overarching strategies.</p>	Maintain capability IAW FY06 outcome.

Facility/ Contract	Salient Capabilities	FY04-06 (Adjust following May 05 BRAC List)	FY07-11
Mississippi Dec 03 (FU)	Grenade Metal Parts.	<p>FY04: No PBS or ARMS core funds.</p> <p>FY05/06: Pursue feasibility of terminating (50 yr.+ 50 yr. option) lease with NASA.</p> <p>Sell equipment and/or move selected equipment to compatible AAP, ARDEC or OGA.</p> <p>Develop and implement exit strategy concept IAW Sec Army Guidance.</p>	
Radford Mar 03 (S,FU)	Single, Multi- Base, Solvent- less Propel- lants; TNT; Large Volume Acid Handling; Nitrocellulose.	<p>FY04/05: Plan/Budget for implementing Cost Reduction/Mod Plan.</p> <p>Apr 04, Award 5 yr or remaining 8 yrs of Supply/ Facilities Use contract.</p> <p>Increase ARMS initiatives to reduce overhead.</p> <p>Consider consolidation potential with Holston.</p> <p>FY06: Pursue business case per overarching strategies.</p>	<p>FY08/11 Recompete if non- performing.</p> <p>Sell Excess to Ownership, Long Term Lease or consolidate as determined by best business case.</p>
Riverbank Mar 05 (FU)	Steel Deep Drawn Cases (Navy 5"); 105mm tank cases; Mortar/ Grenade Metal Parts.	<p>FY04: Develop and implement cost reduction plan.</p> <p>Extend Facility-Use contract to FY 06.</p> <p>FY06: Pursue business case per overarching strategies.</p>	<p>FY07-08: Sell Excess to Owner- ship, Metal Parts Compe- tition, Combining RB and Scranton capabilities.</p>

Facility/ Contract	Salient Capabilities	FY04-06 (Adjust following May 05 BRAC List)	FY07-11
Scranton Mar 12 (FU)	Large Cal Metal Parts; Long Stroke, Hi Tonnage Pressing.	Pursue business case per overarching strategies.	FY11/12: Sell Excess to Ownership or pursue Metal Parts Competition, combin- ing RB and Scranton capabilities.
Crane AAA	Navy Gun LAP; HE Melt Pour/ Press; Pyrotech- nics; Logistics functions.	Follow legislation. Align Underutilized Plant Capacity with future requirements.	Follow legislation. Align Underutilized Plant Capac- ity with future require- ments.
Pine Bluff Arsenal	Smoke/Illumina- tion LAP; Toxic Demil; Chem Depot.	Align Underutilized Plant Capacity with future require- ments.	Align Underutilized Plant Capacity with future requirements.
McAlester AAP	Bomb LAP; Navy Prop Charge LAP; Cold Cast/Melt Pour Bomb LAP; Logistics func- tions.	Follow legislation. Align Underutilized Plant Capacity with future requirements.	Follow legislation. Align Underutilized Plant Capacity with future requirements.

Army Ammunition Depots*

Facility	Net Explosive Storage (Million Square Feet)	Strategic Outload Capability (Containers/Day)
Anniston Defense Munitions Center	1.8	160
Blue Grass Army Depot	1.8	300
Crane Army Ammunition Activity	4.9	310
Hawthorne Army Depot	5.6	188
Letterkenny Defense Munitions Center	1.7	114
McAlester AAP	5.2	400
Pine Bluff Arsenal	1.1	NA
Red River Defense Munitions Center	1.4	133
Tooele Army Depot	1.9	310

* Future updates to this plan will include strategies for the Army Ammunition Depots and activities that result from the Logistics Industrial Base Plan currently being developed.

Core Competencies for Army Ammunition Depots

- Munitions power projection platform mission to rapidly configure, stage and ship munitions to military services to conform to their warfighting readiness needs and requirements.
- Receive, store, ship, account for, demilitarize and dispose of munitions and related items.

4.0 General Contracting Strategies by Ammunition Family

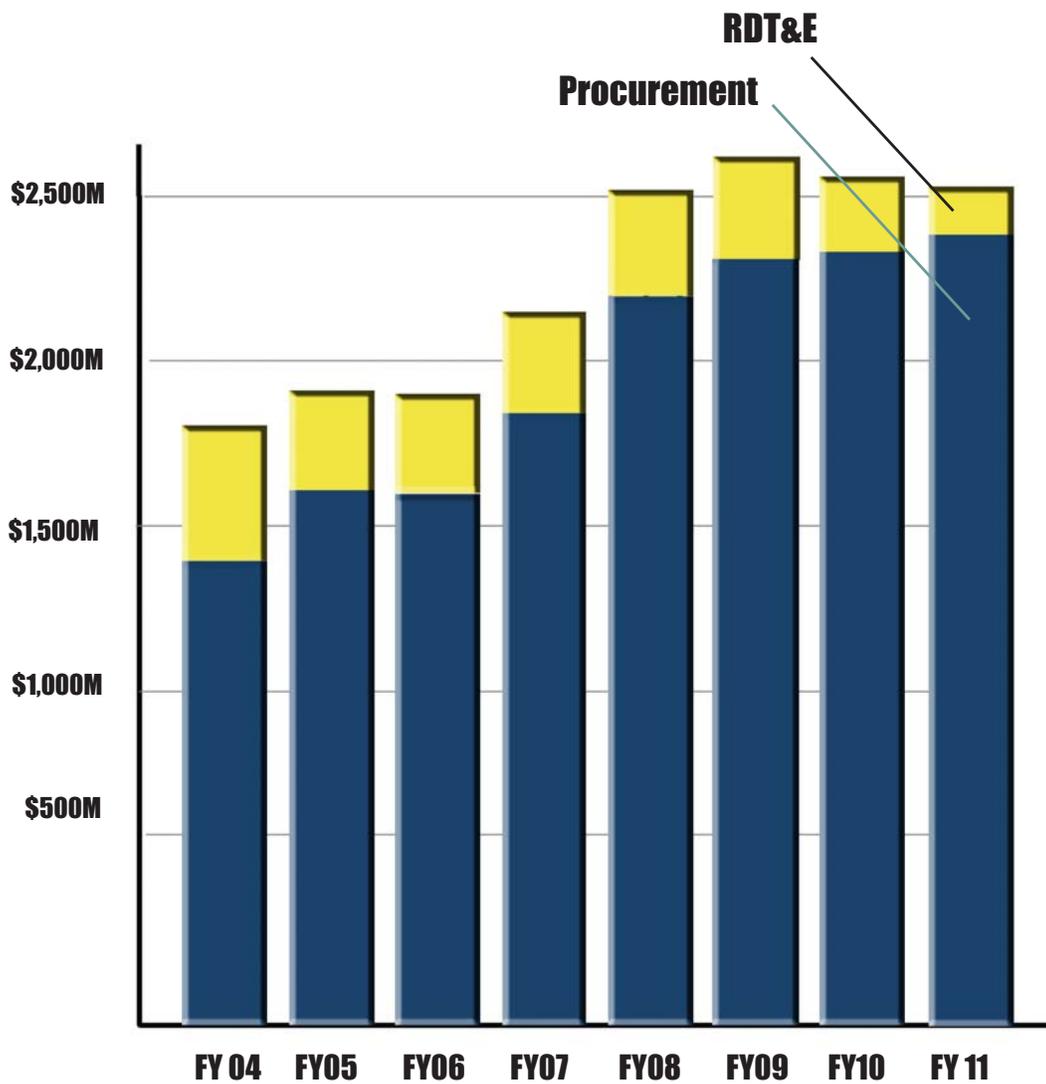
The majority of contracting strategies will utilize Full and Open Competition unless the SMCA determines a need to limit a specific procurement to the National Technology and Industrial Base in order to maintain a supplier for furnishing an essential ammunition item or component. The conditions for restricting procurements for industrial preparedness will follow Defense Federal Acquisition Regulation (DFAR) and include Section 806, Public Law 105-261, Procurement of Ammunition:

Section 806: Procurement of Ammunition. “The official in the Department of Defense designated as the Single Manager for Conventional Ammunition (SMCA) in the Department of Defense shall limit a specific procurement of ammunition to sources within the national technology and industrial base in accordance with section 2304(c)(3) of Title 10, United States Code, in any case in which that manager determines that such limitation is necessary to maintain a facility, producer, manufacturer, or other supplier available for furnishing an essential item of ammunition or ammunition component in cases of national emergency or to achieve industrial mobilization.”

	Family	Prior Contracting Approach Priority	Future Contracting Approach Priority
1.	Artillery	Component Break-out System	System
2.	Bombs	Component Break-out System	Component Break-out System
3.	Medium Caliber	Small Business Component Break-out System	System
4.	Demolitions, Mines & Grenades	Component Break-out System	System
5.	Dispenser Munitions	Component Break-out System	System
6.	Explosives & Propellants	System Component Break-out	System Component Break-out
7.	FASCAM	n/a	System
8.	Fuze	Component Break-out System	Component Break-out System
9.	Mortars	Component Break-out LAP: NTIB	System
10.	Navy Gun	Component Break-out LAP: GOGO	Component Break-out LAP: GOGO
11.	Pyrotechnics	System	System
12.	Rockets & Warheads	System Component Break-out	System Component Break-out
13.	Small Caliber	System	System
14.	Tank	System	System

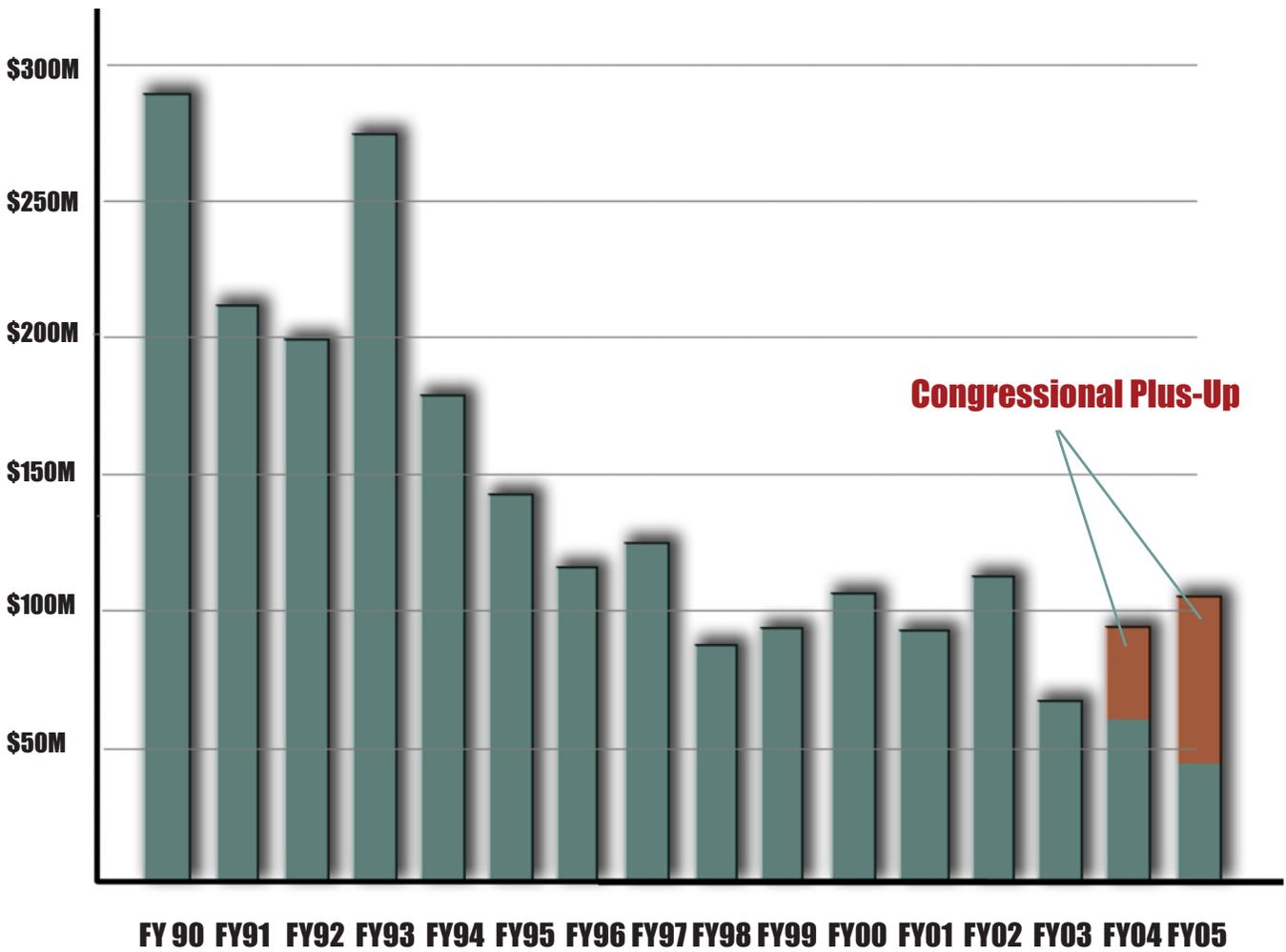
5.0 Financial Condition

FY04-FY11 PEO Ammunition Funding

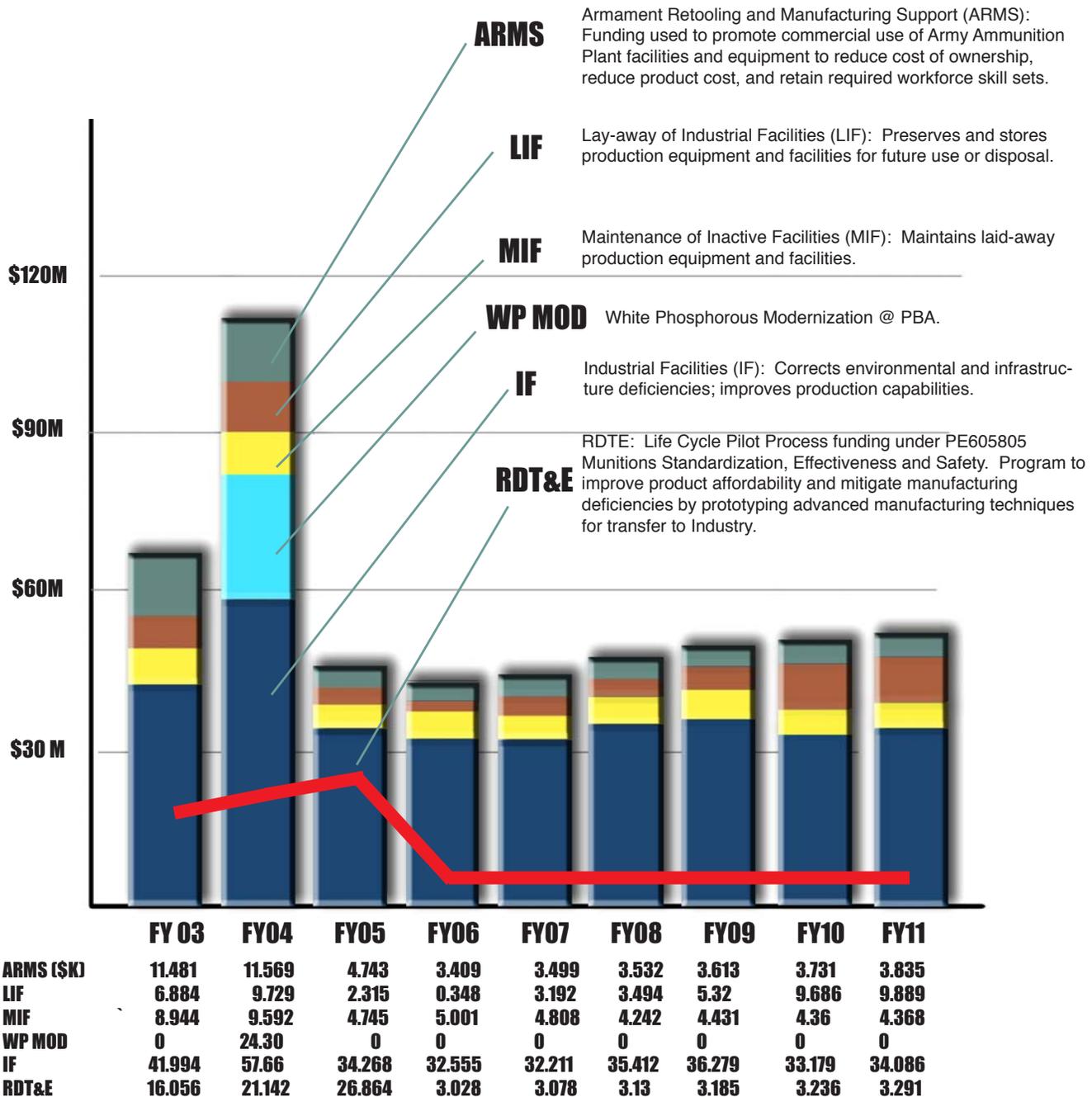


	FY 04	FY05	FY06	FY07	FY08	FY09	FY10	FY 11
Procurement	1,392.9	1,640.5	1,638.9	1,853.6	2,222.2	2,322.0	2,356.1	2,426.8
RDTE	406.7	279.0	265.5	277.9	279.0	282.4	184.8	91.8
Total (\$M)	1,799.6	1,919.5	1,904.4	2,131.5	2,501.2	2,604.4	2,540.9	2,518.6

FY90-FY05 Production Base Support Funding



FY03-FY11 Production Base Support Funding



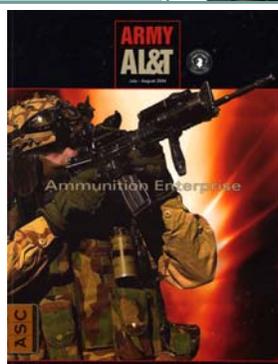
6.0 Army Acquisition Logistics and Technology Magazine Article, July- August 2004

ARMY AL&T

Posturing the U.S. Ammunition Industrial Base for the Future

Matthew T. Zimmerman

The Single Manager for Conventional Ammunition (SMCA) Industrial Base Strategic Plan establishes a management framework for posturing the ammunition industrial base supply chain to effectively respond to current and future conventional ammunition requirements. Its initiatives and strategies provide the underpinnings for optimizing acquisition planning and decision making that affects the ammunition production base's preparedness.



This article appeared in the July-August 2004 edition of Army Acquisition Logistics and Technology magazine.

Amnician Third Class
Horsen inspects an
charge before
he water from an
H-46D Sea Knight
(U.S. Navy photo
ographer's Mate
s Joshua Word.)

JULY - AUGUST 2004 | 59

ARMY AL&T



Figure 1. Ammunition Family Commodity Categories

The Industrial Base

The ammunition industrial base supply chain is a vast global network of critical core competencies, capabilities

- Assistant Chief of Staff for Installation Management/Army Environmental Center
- Assistant Secretary of the Army for Acquisition, Logistics and Technology
- Assistant Secretary of the Army for Installations and Environment
- Chemical Materiel Agency
- Defense Contract Management Agency
- General Services Administration
- HQDA G-3
- HQDA G-4
- HQDA G-8
- Joint Munitions Command
- Munitions Industrial Base Task Force
- PEO Ammunition
- PEO Tactical Missiles
- PM Aviation Rockets and Missiles
- PM Close Combat Systems
- PM Combat Ammunition Systems
- PM Maneuver Ammunition Systems
- U.S. Air Force
- U.S. Army Armament Research, Development and Engineering Center
- U.S. Army Materiel Command Headquarters
- U.S. Marine Corps
- U.S. Navy
- U.S. Office of the Undersecretary of Defense for Acquisition, Technology and Logistics

Figure 2. SMCA Industrial Base IPT Organizations

and capacities that provide the required raw materials, components and assembled end items for military training and combat. The industrial base's dimensions are organized and managed by commodity family categories as depicted in Figure 1 and by base functional area industrial sectors that include:

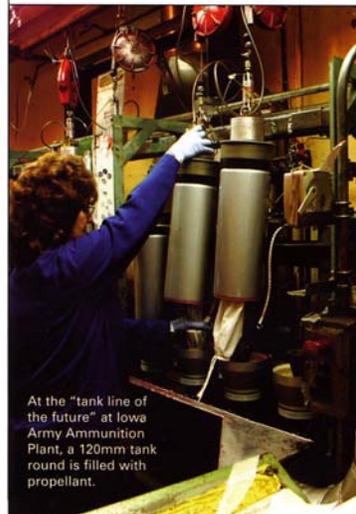
- Propellant.
- Small caliber ammunition.
- Metal parts.
- Explosives.
- Load, assemble and pack (LAP) operations.
- Electronics, sensors and fuzing.

Program Executive Office Ammunition (PEO Ammo), Picatinny Arsenal, NJ, and the Joint Munitions Command (JMC), Rock Island Arsenal, IL, jointly manage the ammunition industrial base, which absorbs DOD resources in excess of \$2 billion annually. It comprises commercial and organic suppliers supporting more than 365 ammunition end items and an expansive bill of materials. The commercial supply side extends well beyond 100 suppliers, while the organic supply base comprises 11 government-owned, contractor-operated

(GOCO) Army Ammunition Plants (AAPs) and three government-owned, government-operated (GOGO) plants that support the Army, Navy, Air Force, Marine Corps and Special Operations Command product lines.

Strategic Planning Process

Strategic planning commenced with the establishment of a multiservice, multiorganizational integrated product team (IPT). The SMCA Industrial Base IPT's diverse composition ensured maximum industrial base stakeholder representation as illustrated by Figure 2. The IPT followed a disciplined approach to structure the planning process and strategic plan content, employing Six Sigma methodologies throughout the effort. The top-level planning process condenses simplistically to the logic of establishing where we want to be in 2015, where we are now and how are we going to get there. These are outlined in Figure 3 on Page 61. The processes' execution was iterative and required periodic reality checks to ensure all goals and objectives were realistically attainable.



At the "tank line of the future" at Iowa Army Ammunition Plant, a 120mm tank round is filled with propellant.

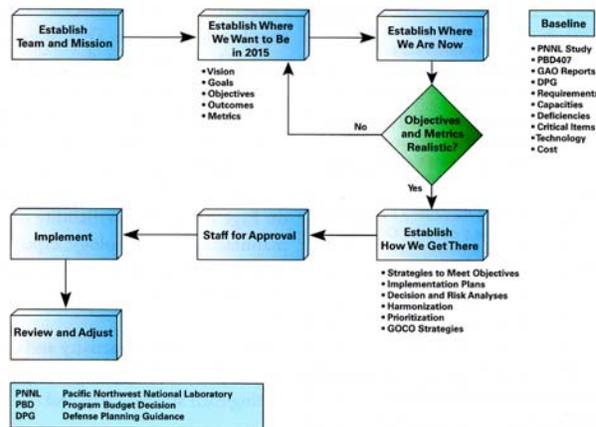


Figure 3. Strategic Planning Process, Level 1 Process Map Using Six Sigma Principles

Several IPT brainstorming sessions and the application of Six Sigma affinity diagramming and quality function deployment techniques generated our strategic vision, goals and overarching strategies. Simply stated, our vision is to create "A responsive, innovative and efficient manufacturing base capable of meeting national security requirements while preserving critical core competencies and relying to the maximum practical extent on competition and private ownership."

Goals and Objectives

In addition, strategic objectives were formulated for each goal, followed by the expected outcomes and performance measures as follows:

- Goal 1.** Balance industrial base and acquisition management risk.
- *Objective 1.1.* Ensure critical core competencies and capabilities are available to meet requirements.
 - *Objective 1.2.* Balance cost, schedule and performance with "need-to-have" capability.
 - *Objective 1.3.* Establish right-sized ammunition industrial base.

- Goal 2.** Transform to meet current and future requirements.
- *Objective 2.1.* Reduce GOCO AAP operating costs/footprint and dispose of excess AAP capacity.
 - *Objective 2.2.* Increase manufacturing capability and readiness.
 - *Objective 2.3.* Determine effective requirements process and replenishment definition/strategy.
 - *Objective 2.4.* Implement an integrated data environment (IDE) to facilitate optimizing acquisition planning and industrial base preparedness.

- Goal 3.** Incentivize industry to reinvest in capital equipment and processes.
- *Objective 3.1.* Increase industry investment in equipment and facilities.

- *Objective 3.2.* Maintain a financially viable industrial base.
- Goal 4.** Modernize utilized manufacturing capacity.
- *Objective 4.1.* Increase manufacturing readiness to meet current and future requirements.
 - *Objective 4.2.* Promote Six Sigma, Lean and flexible manufacturing practices.
- Goal 5.** Operate efficiently and effectively.
- *Objective 5.1.* Reduce ammunition life-cycle costs.
 - *Objective 5.2.* Maximize customer satisfaction.

Overarching Strategies

The IPT also developed seven overarching strategies to support the new vision as follows:

- Acquisitions will determine and posture the production base.
- Acquisitions and investments will be synchronized to ensure required manufacturing capabilities remain available.
- Industrial base considerations will be factored into the acquisition process.
- The industrial base infrastructure will be sized to maximize operating efficiencies and to reflect DOD planning guidance and economic realities.
- Private industry, as the principal ammunition supplier, will be provided incentives for investing in and sustaining the production base.
- Systems acquisition will be used to the maximum extent practicable.

The ammunition industrial base supply chain is a vast global network of critical core competencies, capabilities and capacities that provide the required raw materials, components and assembled end items for military training and combat.

ARMY AL&T

Objectives →	Outcomes →	Strategies*
<p>Objective 1.1 — Ensure critical core competencies and capabilities are available to meet requirements.</p> <p>Objective 1.2 — Balance cost, schedule and performance with need-to-have capability.</p> <p>Objective 1.3 — Establish right-sized ammunition industrial base.</p>	<p>a. Industrial base is prepared to respond to all requirements.</p> <p>b. Increased industrial base stabilities.</p> <p>c. Improved surge capabilities.</p> <p>d. Possible increase in ammunition unit price.</p>	<p>a. Synchronize ammunition procurements core competencies and manufacturing capabilities.</p> <p>b. Use science-based production and prototyping for attaining surge capabilities and emergency requirements.</p> <p>c. Pursue feasibility and overall business case for GOCO AAP sell, long-term lease and/or consolidation focusing on preserving critical capabilities. (Pending BRAC outcome.)</p> <p>*Truncated list of strategies</p>

capabilities, utilized capacities and supplier deficiencies. Deficiencies centered on supplier infrastructure and manufacturing inefficiencies, limited availability of critical components or raw materials, single qualified suppliers (see related information on single point failures in the sidebar on Page 65) and unavailability of manufacturing technology, capability and capacity to meet future advanced munitions needs.

Using the baselining activity and other assessments, lists of strategies for attaining each strategic goal and

Figure 4. Strategic Goal #1 — Balance Industrial Base and Acquisition Management Risk

- Opportunities for greater Joint service activity will be identified and implemented.

Metrics

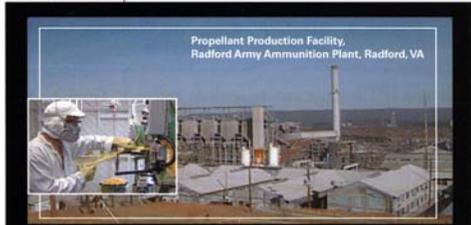
In addition to the performance measures for the strategic goals and objectives, overarching metrics were developed to characterize and baseline the state of the industrial base and to measure the effectiveness of implemented strategies. Because of the magnitude of the data involved, data collection will be a significant challenge requiring maximum use of an ammunition IDE. The overarching industrial base metrics follow:

- Operational — overarching and technical. Overarching: munitions readiness ratings by ammunition family for capability, capacity and availability to meet current and emergency requirements. Technical: supplier production delivery adherence, percent capacity utilization, facility condition, minimum sustaining rate and single point failures.
- Quality — requests for waiver submitted, quality deficiency reports and percent tests passing lot acceptance tests.

- Financial — corporate financial risk assessment.
- Facility Safety — number of Occupational Safety and Health Administration violations.
- Environmental — violations, national priorities list/hazardous rating score and off-site contamination.
- Supplier Assessment Rating — customer satisfaction (cost, schedule, performance and business relations).

Tactical Strategy Formulation

The strategic planning process evolved from “overarching” to “tactical” following significant baselining activities involving data collection and assessment of ammunition requirements,



Operating Contractors	Manufacturing Capabilities
Alliant Techsystems Lake City, MO	Small-Arms Manufacturing
Alliant Techsystems Radford, VA	Propellant Manufacturing (Rocket, Artillery Tank, Medium Caliber; NC for Small Caliber)
American Ordnance Iowa	Load, Assemble & Pack (LAP) — Tank/Artillery, FASCAM
American Ordnance Milan, TN	LAP — Mortars, 40mm Cartridges; C-4 Extrusion
Chamberlain Manufacturing Scranton, PA	Large Caliber — Artillery/Mortar Metal Parts
Day & Zimmerman Kansas	LAP — Sensor-Fuzed Weapon; Mortar/Artillery
Day & Zimmerman Lone Star, TX	LAP — Grenades, Initiators, Detonators, Mines, Cargo Munitions
Day & Zimmerman Mississippi	Semiactive — Cargo Metal Parts
Norris Inc. Riverbank, CA	Steel/Brass Cartridge Cases, Grenade Metal Parts
Ordnance Systems Inc., BAE Holston, TN	Energetics — HMX, RDX
Valentec Louisiana	Semiactive — Large Caliber Metal Parts

Figure 5. Operating Contractors’ Manufacturing Capabilities

objective were developed. To turn the strategies into a manageable and implemental plan, a hierarchical prioritization process (HPP) based on an expert system computer model was used to perform parallel comparisons of strategic goals and objectives to their corresponding tactical strategies. The HPP quantifies the relative importance of each strategy to achieving the most important goals and objectives, effectively determining which strategies should be a priority and which could be consolidated or eliminated. This process condensed 50 strategies to less than 30.

The strategic planning events' connectivity and logic flow is illustrated in Figure 4 on Page 62. For each strategic goal, the IPT developed objectives, expected outcomes, tactical strategies and performance measures.

Organic Industrial Base

The organic industrial base consists of 11 GOCO AAPs and three GOCO plants that were constructed during the World War II era. The operating contractors and a summary of their manufacturing capabilities are shown in Figure 5 on Page 62.

Overarching AAP Strategies

In a March 2003 memorandum, the Secretary of the Army (SECARMY) directed no GOCO AAP consolidation or divestiture implementation other than as part of the FY05 Base Realignment and Closure Process (BRAC). Thus, the SMCA Industrial Base IPT developed the following

overarching AAP strategies in preparation for BRAC's conclusions:

- No GOCO AAP consolidation or divestiture implementation other than as part of the FY05 BRAC process without SECARMY approval.
- Reduce AAP cost of ownership.
- Reduce excess physical capacity and infrastructure.
- Identify and implement opportunities for greater Joint service activity.

The HPP quantifies the relative importance of each strategy to achieving the most important goals and objectives, effectively determining which strategies should be a priority and which could be consolidated or eliminated.

In addition, the AAP facility-use contracts will be aligned with the FY05 BRAC timelines to the maximum extent practicable. Following the BRAC decisions, the feasibility and overall business case for sale, long-term lease and/or consolidation of capabilities to maximize efficiencies will be pursued.

Conclusion

Following Six Sigma methodologies, the SMCA Industrial Base IPT developed a strategic plan that establishes a management framework

for posturing the ammunition industrial base supply chain to effectively respond to current and future conventional ammunition requirements. The plan is an important communication tool to all industrial base stakeholders. Further, it is understood that strategic planning is an ongoing process requiring constant evaluations and that all strategies are subject to modification to adjust to conditions in the surrounding global environment. Implementation of any strategic plan requires corporate and organizational

buy-in at all levels to be successful. The Ammunition Enterprise and the SMCA Industrial Base IPT have that buy-in and are making significant progress to ensure the industrial base supply chain is postured to effectively respond to current and future requirements. Progress is being made. Much more work lies ahead. As former General Electric Chairman and Chief Executive Officer Jack Welsh said, "You've got to come up with a plan. You can't wish things will get better."

MATTHEW T. ZIMMERMAN is the Associate PEO Ammo, Industrial Base, and is the SMCA Industrial Base IPT leader. He has a B.S. in mechanical engineering from Penn State University, an M.S. in engineering from Stevens Institute of Technology and an M.S. in technology management from the University of Pennsylvania. Zimmerman is Level III certified in program management and systems engineering.



7.0 References

Bondanella, J., Held, B., Hix, M., Hynes, M., Keating, E., Oaks, D., (RAND), Options for Managing the Army's Arsenal and Ammunition Plants, Washington, DC.

Bondanella, J., Held, B., Hix, M., Hynes, M., Johnson, D., Pregler, A., Sollinger, J., Stollenwerk, M., (Rand), *Freedom's Arsenal: A Strategy for Managing the Army's Arsenal and Ammunition Plants*, Washington, DC: 2002.

Doherty, T. J. and Rhoads, R. E. (PNNL), *Recommended Strategy for Configuring and Managing the U. S. Munitions Industrial Base*, Washington: 1997.

GAO, *Ammunition Industrial Base Information on DOD's Assessment of Requirements*, Washington, DC: 1996.

GAO, *Defense Management Army Could Achieve Efficiencies by Consolidating Ammunition Management*, Washington, DC, 1999.

GAO, *Defense Inventory Steps the Army Can Take to Improve the Management and Oversight of Excess Ammunition*, Washington, DC: 2001.

Industrial Analysis Center, *Army Transformation Industrial Base Study*, Washington, DC: 2003.

National Center for Advanced Technologies, *An Assessment of the U. S. Army's Manufacturing Technology Program Relative to the Needs of the Future Combat Systems Program*, Washington, DC: 2002.

Thompson & Strickland, *Crafting & Implementing Strategy*, University of Alabama: 1995.

U.S. Army Operations Support Command Ammunition Stockpile Reliability Program Division, *State of the Ammunition Stockpile - Executive Summary*, Rock Island, IL 2002.

8.0 Acronyms

AAA	ARMY AMMUNITION ACTIVITY
AAP	ARMY AMMUNITION PLANT
ACSIM	ASSISTANT CHIEF OF STAFF, INSTALLATION MANAGEMENT
AEC	ARMY ENVIRONMENTAL CENTER
AMC	ARMY MATERIEL COMMAND
APE	AMMUNITION PECULIAR EQUIPMENT
ARDEC	ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER
ARMS	ARMAMENT RETOOLING AND MANUFACTURING SUPPORT
ASA(ALT)	ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS & TECHNOLOGY)
ASA(I&E)	ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS AND ENVIRONMENT)
BASEOPS	BASE OPERATIONS
BRAC	BASE REALIGNMENT AND CLOSURE
CAM	CENTRALIZED AMMUNITION MANAGEMENT
CAS	COMBAT AMMUNITION SYSTEMS
CCS	CLOSE COMBAT SYSTEMS
CMA	CHEMICAL MATERIALS AGENCY
DA	DEPARTMENT OF THE ARMY
DCD	DESERET CHEMICAL DEPOT
DCMA	DEFENSE CONTRACT MANAGEMENT AGENCY
DFAR	DEFENSE FEDERAL ACQUISITION REGULATION
DOD	DEPARTMENT OF DEFENSE
FASCAM	FAMILY OF SCATTERABLE MINES
FU	FACILITIES USE CONTRACT
GOCO	GOVERNMENT OWNED, CONTRACTOR OPERATED
GOGO	GOVERNMENT OWNED, GOVERNMENT OPERATED
GSA	GENERAL SERVICES ADMINISTRATION
HE	HIGH EXPLOSIVE
HQ	HEADQUARTERS
HQDA	HEADQUARTERS, DEPARTMENT OF THE ARMY
IAW	IN ACCORDANCE WITH
ICAP	INDUSTRIAL COMMITTEE OF AMMUNITION PRODUCERS
IDE	INTEGRATED DATA ENVIRONMENT
IF	INDUSTRIAL FACILITIES
IPT	INTEGRATED PRODUCT TEAM
ISO	INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
JMC	JOINT MUNITIONS COMMAND
JOCG	JOINT ORDNANCE COMMANDER'S GROUP
LAP	LOAD, ASSEMBLE AND PACK
LIF	LAY-AWAY OF INDUSTRIAL FACILITIES

LMP	LOGISTICS MODERNIZATION PROGRAM
MAS	MANEUVER AMMUNITION SYSTEMS
MIBTF	MUNITIONS INDUSTRIAL BASE TASK FORCE
MIF	MAINTENANCE OF INACTIVE FACILITIES
NASA	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
NDIA	NATIONAL DEFENSE INDUSTRIAL ASSOCIATION
NTIB	NATIONAL TECHNOLOGY AND INDUSTRIAL BASE
OGA	OTHER GOVERNMENT AGENCY
OPLAN	OPERATIONAL PLAN
OSD	OFFICE OF SECRETARY OF DEFENSE
OUSD(AT&L)	OFFICE OF UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS
PAA	PROCUREMENT OF AMMUNITION, ARMY
PBA	PINE BLUFF ARSENAL
PBS	PRODUCTION BASE SUPPORT
PEO	PROGRAM EXECUTIVE OFFICE
PM	PROGRAM MANAGER
R3	RESOURCE, RECOVERY AND REUTILIZATION
RDT&E	RESEARCH DEVELOPMENT TEST AND EVALUATION
S	SUPPLY
SBP	SCIENCE BASED PRODUCTION
SMCA	SINGLE MANAGER FOR CONVENTIONAL AMMUNITION

Publication History

Initial, 3 November 2003

Update, May 2004: Prioritized 30 tactical strategies and added performance measures

Update, November 2004: Integrated logistics considerations into production strategies

*Suggestions or comments regarding this document should be sent to:
peo-ammo-ibase@pica.army.mil*