

MANEUVER
AMMUNITION
SYSTEMS

ICAAP



Mr. William Sanville
Project Manager
Maneuver Ammunition Systems





MISSION



Provide the Army, the Department of Defense and Allies With World Class Ammunition for Use by the Soldiers and Maneuver Combat Weapons Platforms

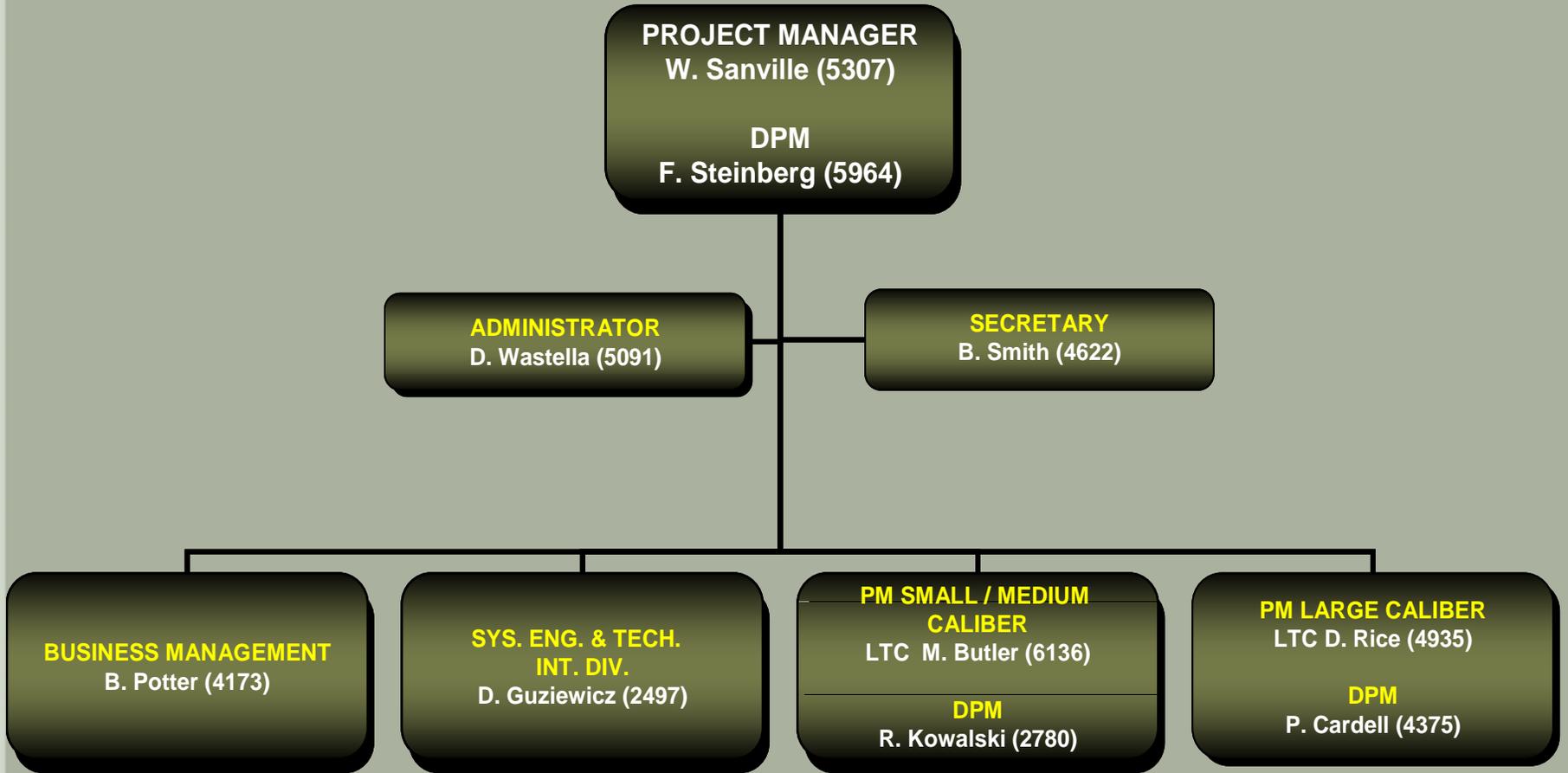
Perform Life Cycle Management of Ammunition to Include Development, Testing, Production and Fielding. Additionally, Provide Expertise in Weapons, Ammo Handling, Target Acquisition/Recognition and Fire Control

Platforms Include – Abrams Tank, Bradley Fighting Vehicle, Mobile Gun System, Future Combat Systems and Aviation

**Ammo for Current, Interim,
Future Systems &
Dismounted Soldiers**



PM MAS ORGANIZATION





PM MANEUVER AMMUNITION SYSTEMS



PROGRAM	HERITAGE	PHASE	ACAT LEVEL
Large Caliber Ammunition			
•120mm M830A1 High Explosive Anti-Tank Multi-Purpose (Heat-MP-T)	TMAS	Production	III
•120mm XM908 High Explosive Obstacle Reduction (HE-OR-T)	TMAS	Production Complete	III
•120mm M829A2 APFSDS-T	TMAS	Production Complete	III
•120mm KEWA1 / KEWA2	TMAS	Production	III
•120mm TPMP-T XM1002	TMAS	SDD	III
•120mm Canister, XM1028	TMAS	SDD	III
•120mm M829A3	TMAS	Production	II
•120mm M865 TPCSDS-T Tank Training Cartridge	OSC	Production	III
•120mm M831A1 TP-T Tank Training Cartridge	OSC	Production	III
•105mm M393A3 HE-T	TMAS	Production	III
•105mm TP-T Target Practice Cartridge	TMAS	Production	III
•105mm XM1040	TMAS	SDD	III
•Mid Range Munition (MRM)	ARDEC	Concept & Tech Development	II
•120mm Lightweight Gun	FCS	Concept & Tech Development	III
Medium Caliber Ammunition			
•25mm M910 TPDS-T Target Practice Discarding Sabot	OSC	Production	III
•25mm M793 TP-T Target Practice with Tracer	OSC	Production	III
•25mm M919 APFSDS-T Armor Piercing Fin Stabilized Discarding Sabot	TMAS	Production	III
•25mm M910E1 TPDS-T Target Practice Discarding Sabot	TMAS	SDD	III
•30mm TP M788 Target Practice Cartridge	OSC	Production	III
•30mm HEPD M789 High Explosive Dual Purpose Cartridge	OSC	Production	III
•Mk44 30/40mm Weapon System, Cannon & Ammo	ARDEC	Concept & Tech Development	III
•40mm M918 Practice round (B584)	OSC	Production	III
•40mm M385A1 Practice round (B576)	OSC	Production	III
•40mm M781 Practice round (B519)	OSC	Production	III
•40mm M430A1 HEPD High Explosive Dual Purpose Cartridge (B542)	OSC	Production	III
•40mm M430A1E1 DUD Reducing	PM-SW	SDD	III
•40mm M583A1 WS Para (B535)	OSC	Production	III
•40mm M1001 Flechette Filled Canister Cartridge	DSA	Production	III
•40mm XM1060 Multipurpose Cartridge	PM-SW	SDD	III
Small Caliber Ammunition			
•Ctg 5.56mm Ammunition Family	OSC	Production	III
•5.56mm M995 Cartridge	DSA	Production	III
•Ctg 7.62mm Ammunition Family	OSC	Production	III
•7.62mm M993 Cartridge	DSA	Production	III
•7.62mm M973/M974 Short Range Training Ammunition	DSA	Production	III
•0.50 Cal Ammunition Family	OSC	Production	III
•Cal .50 M903/M962 Sabot Light Armor Penetrating Cartridge	DSA	Production	III
•Grenade, Rifle, Entry Munition, M100	DSA	Production	III
•Cal .30 Blank Cartridge	OSC	Production	III
•10 Gage Blank, 12 Gage #00 Buckshot, 12 Gage #9 Shot Cartridges	OSC	Production	III
9mm M882 Ball, 9mm Com Pack Cartridges	OSC	Production	III
XM1041/XM1042 Close Combat Capability Kit	PM-SW	SDD	III
XM1037 Short Range Training Round	PM-SW	SDD	III
.50 Cal XM1022 Sniper Ammo for XM107	PM-SW	SDD	III
12 Gauge M1030 Breaching Round	PM-SW	Production	III
5.56mm N862 Short Range Training Round	PM-SW	Production	III
9mm MK243 MOD O Jacketed Hollow Point	PM-SW	Production	III



PM-MAS VIEW OF THE “FUTURE”

**Ammunition as an Acquisition
Program instead of a
“Commodity”**

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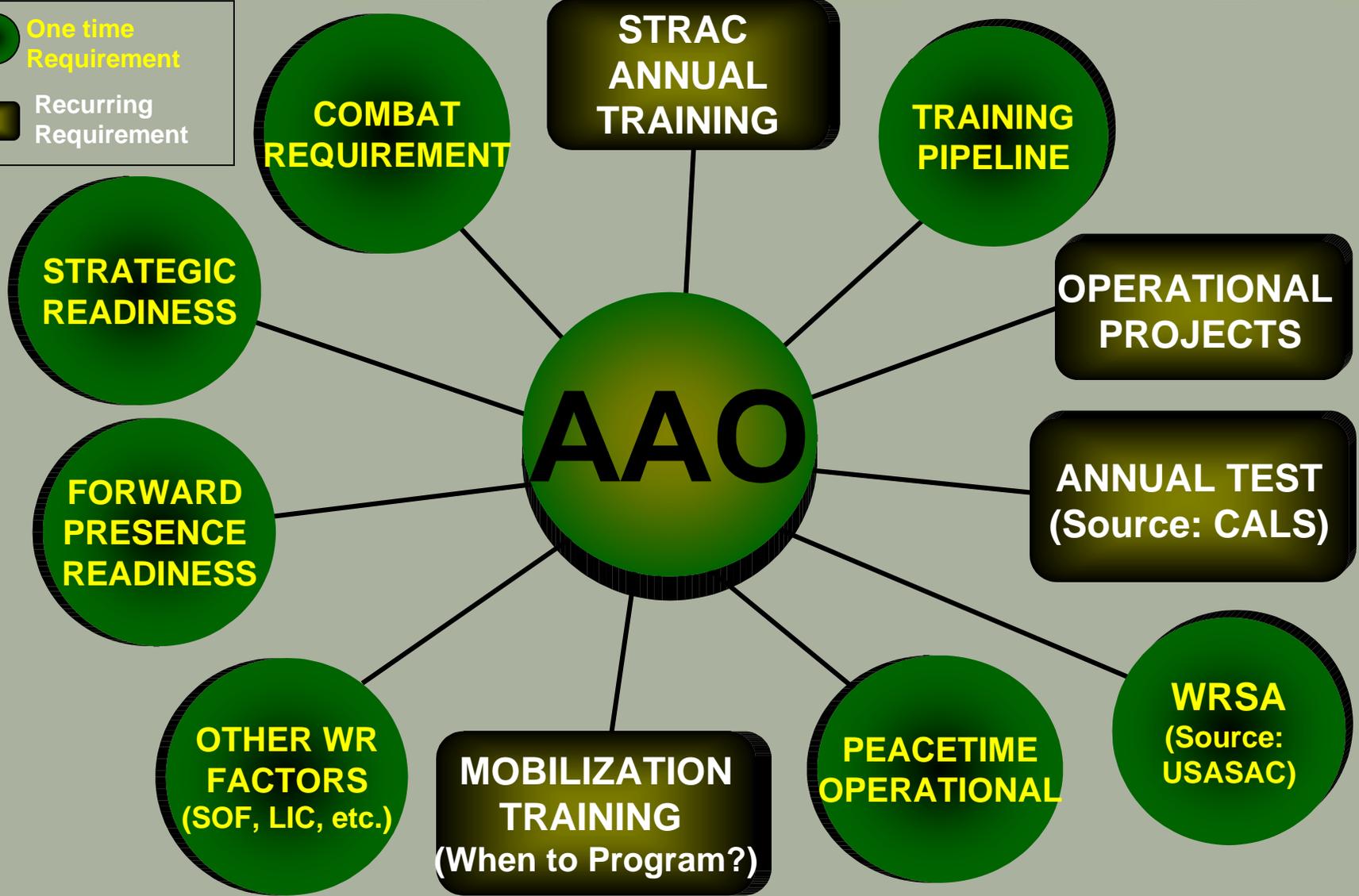
DEFINE THE REQUIREMENT



AMMO REQUIREMENT GENERATION CONSIDERATIONS



● One time Requirement
■ Recurring Requirement





REQUIREMENT ISSUE



Current Requirements Process Does Not Yield Realistic and Timely Output to Facilitate Coherent Long Term Planning, Programming and Budgeting

P-20 PROBLEMS

- **Training Unique**
 - 150 day – 1 yr pipeline
 - Shortfall trigger is pipeline shortage
- **Training Standard**
 - No pipeline (WR inventory to serve as pipeline)
 - Shortfall trigger is actual training shortage
- **War Reserve**
 - No WR shortfall trigger

RESULTS IN

- New requirements have MGS vehicles train at 7-9x historical Abrams training rates (675 – 950 rds per yr)
- War Reserve funded by non-ammo MDEPs (FPSM / RA11)
- Shortfall analyses favor Training Unique over Training Standard and War Reserve

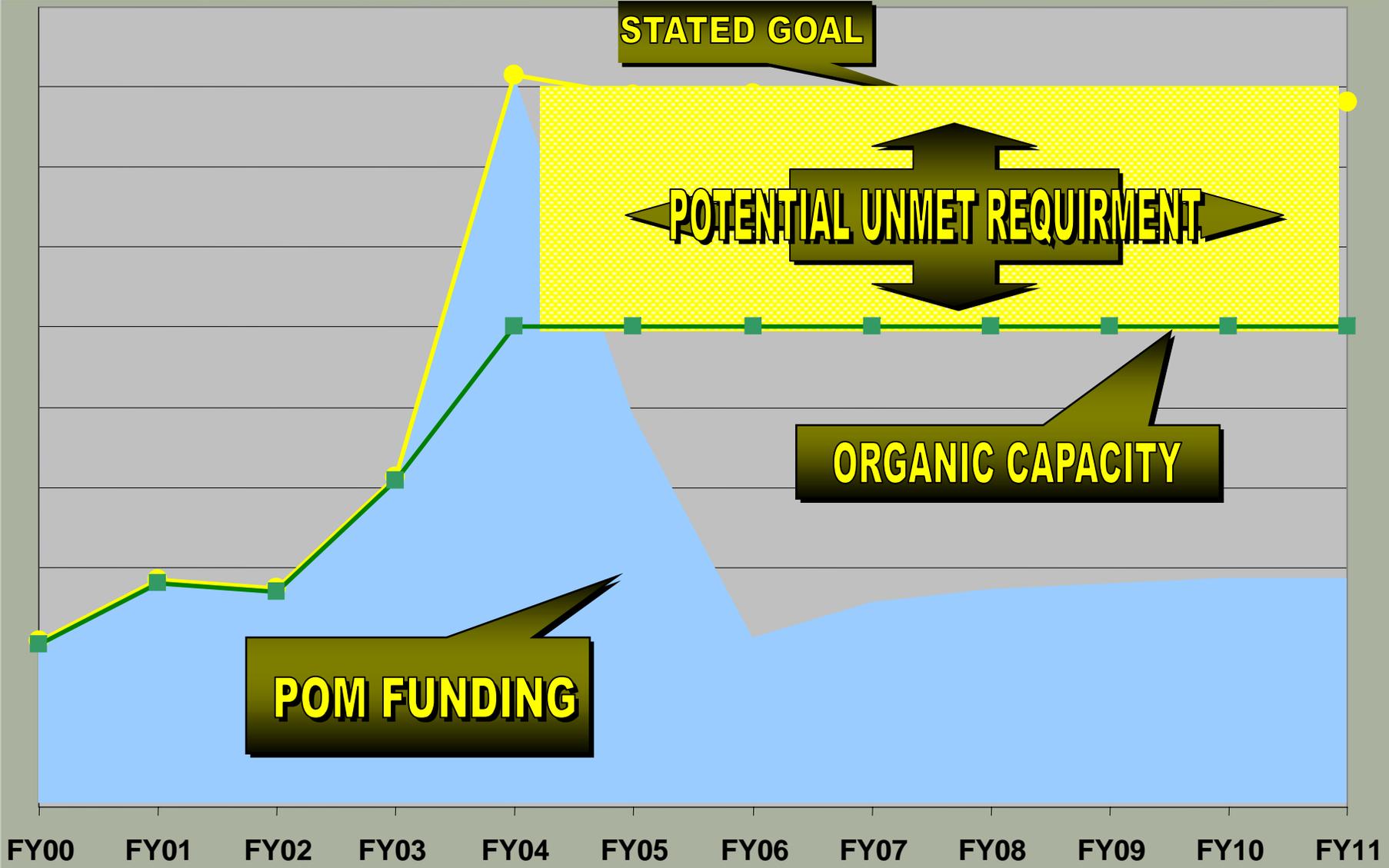
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FUND THE REQUIREMENT



EXAMPLE



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EXECUTE THE REQUIREMENT



LARGE CALIBER



	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
CURRENT FORCE: - M829A3 - XM1028 CANISTER - M830A1 (USMC)		△ MY Awd (Possible Competition)									
	PRODUCTION										
		SDD	LRP	PRODUCTION							
	PRODUCTION										
STRYKER FORCE: - HE-T - HE-TP - XM1040 CANISTER	1 Bde	2 Bde	3 Bde	4 Bde	5 Bde			6 Bde	(ARNG)		
	SAMPLE EVAL/LRP		PRODUCTION								
	SAMPLE EVAL/LRP		PRODUCTION								
	▲ K Awd	SDD	LRP	PRODUCTION							



LARGE CALIBER



	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
OBJECTIVE FORCE: - MRM - MRM BLK II (Notional) (Sensor fusion, lethality, ECM) -LOS MP (Notional) - Advanced KE (Notional)		TRL 6 Demo △ MS B △ △ Awd	SDD			LRP		PRODUCTION			
						SDD			LRP		
					SDD						
					SDD						
TRAINING AMMO: - M865 - M831A1 -XM1002		MY III Awd △	PRODUCTION						 		
					PRODUCTION		 				
		SDD / LRP 	LRP / FAAT	PRODUCTION		LRP / PRODUCTION					



MEDIUM (CANNON) CALIBER



20MM MED CAL		FY03	FY04	FY05	FY06	FY07	FY08
GROUP	PGU-27A/B		04 Basic with 200% Option				
	PGU-27A/B & 30A/B		04 Basic with 200% Option				
GROUP	PGU-28A/B		04 Urgency	05 Basic with Options			

25MM MED CAL		FY03	FY04	FY05	FY06	FY07	FY08
GROUP	M793	Multi - Year 99-03	04 Single Buy	Long - Term Contract			
	M910			Contingency Option			
	PGU-23			Long - Term Contract			

30MM MED CAL		FY03	FY04	FY05	FY06	FY07	FY08
	M788	Multi - Year 99-03	04 Single Buy	Long - Term Contract			



40mm GRENADES



- **Current Strategy– Component Breakout**
 - Large Number of Short Term Contracts Awarded Each Year
 - \$36M Rescinded by Congress
 - Breakout Strategy does not Utilize Industrial Base Synergy to Economize on Design and Logistical Issues
 - **Proposed Strategy - Group 40mm Ammunition into a Systems Strategy Utilizing Small Businesses in a Joint Venture/Teaming Arrangement**
 - All 6 items will be grouped into a Systems Buy
 - Procurement will be restricted to Small Businesses with award to 2-3 Joint Venture Teams
 - Long Term Contracts – Base Year Plus 4 One-Year Options Promote Economies of Scale and Synergy of a Group Buy
- Benefits**
- Allows Quick Turnaround for Additional Quantities
 - Provides Long Term Stability and Reduces Govt Admin and Contractor B&P Costs
 - Aggressively Pursue Value Engineering and Design Improvements
 - Achieves DOD Needs for Ammunition More Effectively and Efficiently



SMALL CALIBER



- **Current Situation:**
 - DoD FY03/04 Requirements Exceed Capacity at LCAAP
 - Unable to meet urgent delivery requirements
 - Training and readiness impacted
- **Actions Taken:**
 - Direct Govt. Award to meet Short Term Urgency for M855 Ball Commercial Pack
 - Contracts awarded to Olin and IMI
 - Market surveys Initiated for:
 - 7.62mm - M82 Blank Linked, M80 Ball 4:1 Linked, and M80 Ball Linked
 - .50 Cal – M33 Ball Linked, M33 Ball/M17 Tracer Linked, 4 API/1 Tracer w/M9 Link, M33 Ball/M17 Tracer Linked, M1A1 Blank Linked
 - 5.56mm – M200 Blank Carton
 - Govt. will pursue additional short term urgency buys to meet the need
- **Mid-Term (FY05-FY09):** Establish additional capability if funding & requirements exist
- **Long Term (FY09+):** Maintain LCAAP and additional capability to mitigate risk and meet surge requirements



SUMMARY



- **Military Standard Ammunition is not a catalog or K-Mart item – it is an Acquisition Program**
- **While all contingency requirements cannot be forecasted, realistic requirements should**
- **Waiting until the budget year to fully fund ammunition leads to crisis execution**
- **A POM funded to requirements will lead to coherent long term acquisition strategies and partnerships with an appropriately sized industrial base**

ACTIVITY FOLLOWS MONEY



MEDIUM CALIBER CARTRIDGES (BACKUP)



- **25mm & LW 30mm Training Ctgs (USA, USMC, & USN)**
 - Base year award in FY05 with options for next four years
 - Ctgs covered are M793 25m TP-T, M788 LW30mm TP, M848 LW30mm Dummy, and PGU-23/U 25mm TP
 - M910 25mm TPDS-T will be included as a priced option
 - LW30mm Dummy award will be “winner take all”
 - Compete U.S. and Canada
 - Two awards based on 55-45 split
- **PGU-28A/B SAPHEI (NavAir unique)**
 - Single year award in FY04
 - Sole source award to GDOTS under urgency
 - FY05 and beyond – limited to U.S. and Canada
- **PGU-27 A/B TP (NavAir & USAF)**
 - Single year award in FY04 with 200% option
 - Compete U.S. and Canada
 - Two awards based on 60-40 split
 - If no FY05 supplemental money received, FY04 option to cover FY05 buy
 - FY06 contract to bridge FY06 - FY09
- **PGU-38/U 25mm HEI Ctq (USAF Unique)**
 - Single year award in FY04
 - Compete between ATK and GDOTS
 - Award will be “winner take all”
 - ATK is presently only qualified producer of PGU-38/U ctg and FMU-151/B fuze
 - With change in AC-130 weapon systems, this may be last PGU-38/U buy