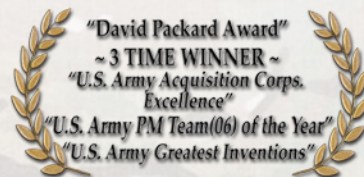




2017 NDIA Armament Systems Forum Firing Demonstrations (Session III)

**COL M. Gutierrez, Project Manager,
Maneuver Ammunition Systems**

1-4 MAY 2017



SOLDIER WEAPONS

Armament Systems Platform Integration

GROUND



M110
(7.62mm)



M240



MK19



9MM

MHS MS C Approval Phase I Downselect Competition



M4A1

XM1158 7.62mm ADVAP MS B - DEC 16
XM1161 7.62mm OWL MDD - DEC 16
XM1154 7.62mm RRA



M249
(5.56mm)



M2
BROWNING
(.50 CAL)



12 GAUGE SHOTGUN

Shotshell Study @ MCoE

.50 Cal Ammo CDD Initiated AROC

ROTARY



APACHE



M134
MINIGUN



COBRA



LW30 AB/30x113mm Proximity Dev.



BLACKHAWK

NAVY



PHALANX
C-RAM



AIR



AC-130



A10

MOUNTED

M829A4: FMR / FRPDR - MAY 16
AWARD PY2 OPTION - AUG 16

AMP: EMD PHASE 1 EFFORTS COMPLETE-ON SCHED.- WITHIN COST
PHASE 2 DOWNSelect - ON SCHED. - JAN 17



MK19

40mm HV Anti Personnel Devel.



ABRAMS



BRADLEY

STRYKER MGS

M724A2 TC-STD APPROVAL AWARDED FIRST PROD. ORDER



MPF

AROC Approved AoA Ongoing

30x173mm AB for Stryker Lethality



JLTV
30X113mm

MOUNTED SYSTEMS



Priorities & Focus

Future Capabilities to Defeat Threats in Lethal, Contested Complex Environment

- Airburst Munitions for Mounted & Dismounted Fight - Autonomous/Programmable
- Extended Range Munitions - across the portfolio
- Increased Precision/Guided

Current Development Programs	
7.62mm One Way Luminescence (OWL)	40mm Day/Night/Thermal Training (DNT)
7.62mm Lightweight Small Caliber Ammo	120mm Advanced Multi-Purpose (AMP)
7.62mm Reduced Range Ammunition (RRA)	Stryker ONS 30 x 173mm

Emerging Needs	
5.56, 7.62 & .50 Cal	OWL, LW Ammo, Reduced Range Training
40mm Grenades	HE Airburst, Door Breach
30mm Cannon	HE Airburst
105mm Multi-Purpose	
120mm Extended Range	

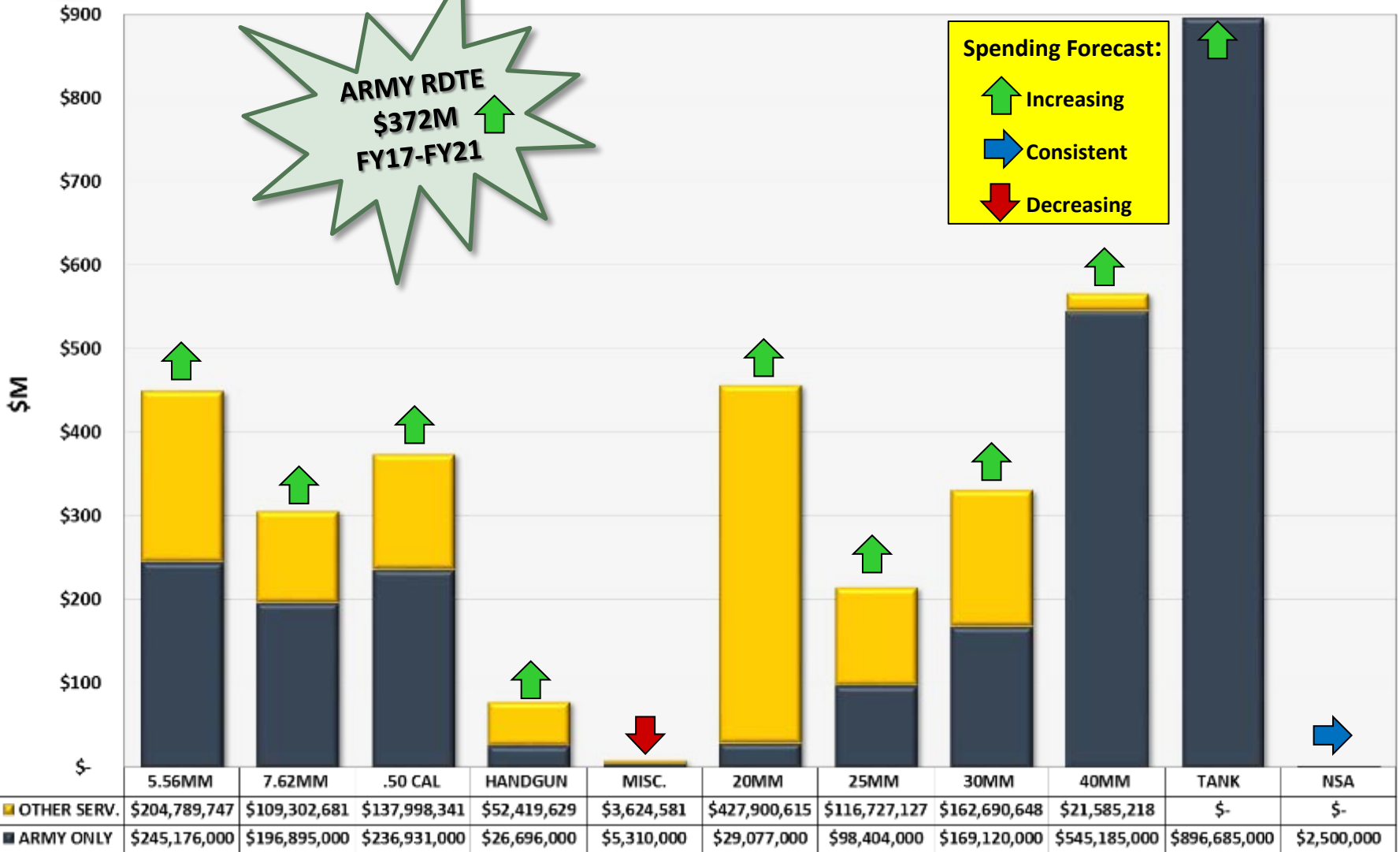
Potential for Increased Production to Support the Joint Warfighter

- FY17 DoD budget with Congress - potential for significant increases in ammo buys
- PM MAS now buying all Non-Standard Ammo for CENTCOM
- FY17 projections - 950M rounds Standard/91M Non-Standard

Change in Character of War



PM-MAS PB17 Budget Outlook (FY17-FY21)





Scenario—Threat Based Posture

- Multi-Caliber approach to Overmatch threat capabilities
- Focus R&D Investments in that direction
- Maintain Industrial Base capacity & surge

Small Caliber



LOW RISK

Significant Capacity
Lake City, NTIB, Foreign
7.62mm EPR limiting round



Medium Caliber



LOW/MED RISK

Significant NTIB
Capacity Available
40mm
Cannon Caliber



Large Caliber



MED/HIGH RISK

LOW RISK to Surge KE Rounds
HIGH RISK to Surge HE



CURRENT CAPABILITY	FUTURE CAPABILITY
Legacy AP (Threat)	XM1158 (Lethality)
Brass Case (Weight)	LSC (Maneuverability)
Legacy Tracer (Vulnerability)	XM1161 OWL Tracer (Survivability)
Legacy Precision (System Advancement)	APTC/RR (Flexibility)
EPR	Improved Precision (Lethality)

SAAC

CURRENT CAPABILITY	FUTURE CAPABILITY	CURRENT CAPABILITY	FUTURE CAPABILITY
AP, HEI, PI	Multi-Mode Fuze	Aging 105 Fleet	Multi-Purpose 105mm Round
Point Detonation	IRAP	M1028 Canister	120mm AMP
Airburst		M829A3/A4 SABOT	Current and Future MBT defeat
Stryker-None	30 x 173mm – PABM	M830A1 - MPAT	Multi-Mode Fuze
JLTV-None	30 x 113mm – Prox		ADL Equipped Rounds

MFMS / CVMS

ABILITY TO SURGE

□ LOW ■ MED ■ HIGH



Industrial Base Posture

Key Trends

MEDIUM CANNON CALIBER (20mm, 25mm, 30mm)

- 30x173mm Ammunition for Stryker ICV ONS
 - ✓ Short-term Urgent Materiel Release (UMR) of Ammo
- Potential 30x173mm Program of Record
 - ✓ Full Materiel Release for Army
 - ✓ Programmable Airburst Development
- New emerging requirements could increase outyear demand
 - ✓ Increased lethality for JLTV
 - ✓ 30mm AB

MEDIUM CALIBER AMMUNITION (40mm Grenades)

- Requirements could increase outyear demand
 - ✓ Low Velocity High Explosive Airburst Development
 - ✓ Potential Adoption of 40mm Door Breaching Ctg.
 - ✓ Potential High Velocity Anti-Personnel Capability on MK19
- TP-DNT production starting late FY17
- High FMS demand for M430A1

SMALL CALIBER AMMUNITION (5.56mm, 7.62mm, .50 CAL, Misc)

- Small Caliber ammunition products in relatively good position
 - ✓ Potential for Lake City AAP competition in FY18-FY19
 - ✓ Maintaining Second Source for high demand products
- Boutique Items – Close Combat Mission Capability Kit (CCMCK), Short Range Training Ammunition (SRTA) etc. more dependent on other service buys



PM MAS FY17/ FY18 Competitive Opportunities

FY17 / FY18

FY17

Program/ Item/ Description	Projected RFP Release	Projected Award Date	Total Potential Contract Value	Contract Strategy*	Contract Type**
7.62mm Bottleneck Blank	AUG 16	MAR 17	\$6.25M	C	IDIQ
Shotshell	AUG 16	MAR 17	\$20.1M	C	IDIQ
120mm Tank Training	JUL 16	MAR 17	\$671.1M	LC	FFP
Small Cal Non Recurring Engineering	JUL 16	APR 17	\$65M	C	IDIQ
5.56mm Frangible	DEC 16	AUG 17	\$52.8M	C	REQ
NSA IDIQ (CONUS)	JAN 17	AUG 17	\$500M	C	IDIQ
40mm Systems	FEB 17	SEP 17	\$483M	C	FFP

FY18

Medium Caliber Family	DEC 17	JUL 18	\$2B	LC	IDIQ
40mm IRAP	NOV 17	MAY 18	\$28.9M	C	FFP
PM MAS Support	DEC 17	MAY 18	\$10M	C	IDIQ

*Competitive (C), Small Bus Set-Aside (SBSA), National Tech. & Industrial Base (NTIB), Sole Source (SS), Limited Competition (LC)

**Firm Fixed Price (FFP), Indefinite Delivery/ Indefinite Qty. (IDIQ), Requirements Contract (REQ)

AWARDED



PM-MAS Request for Industry Input

- PM-MAS has R&D Funds to execute EMD Programs for validated requirements (Most cases) – IRAD – Strategy should support Govt. vision
 - Identify/Minimize potential sole source situations at all levels of suppliers
- Industry input will be considered in developing acquisition strategy



Message to Industry

- **Contested complex near peer adversaries create potential to be outsourced, out ranged, out protected and out of balance**
- **Overall Direct Fire Ammunition Production rising next few years**
 - Near Peer scenarios will put upward pressure on War Reserve requirements
- **Overall increase in R&D across Portfolio with focus on speed to field**
- **Consolidation for Non NATO Munitions**
 - Requirements not going away anytime soon
 - CENTCOM / Big Army / SOCOM consolidation