

# PROJECT MANAGER COMBAT AMMUNITION SYSTEMS

## Munitions Executive Summit 7 April 2022

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**FORGING THE FUTURE OF INDIRECT FIRE**



# PM CAS Family of Products

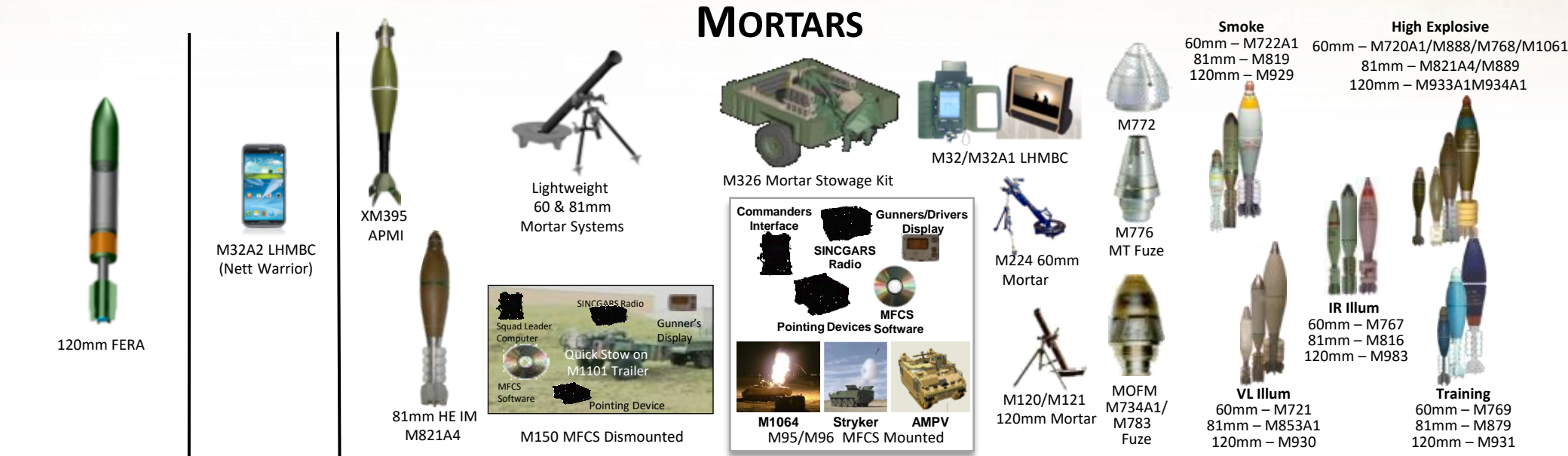


## ARTILLERY



**Concept      Development      Production/Sustainment**

## MORTARS



**Concept      Development      Production/Sustainment**





# PM CAS Priorities

- Deliver Ammunition & Weapon Systems to meet or exceed Customer Required Delivery Dates
  - ✓ Stabilize production lines and delivery schedules
  - ✓ Continued emphasis on Safety and Quality
  - ✓ Field Excalibur Shaped Trajectory capability and BONUS
- Develop Long Range Precision Effects
  - ✓ Prepare for production of XM1113 and XM1128
  - ✓ Build/Test/Qualify XM1210 with PGK-ER and LR-PGK
  - ✓ Complete development and prepare for production of new family of 155mm propellant for ERCA
  - ✓ Qualify/Deliver Cannon-Delivered Area Effects Munition (C-DAEM) Armor solution
  - ✓ Extended Range Cannon (ERCA) Excalibur qualification
- Balance Modernization and Production activities
  - ✓ 155mm Metal Parts
  - ✓ New NC from Radford Army Ammunition Plant
- Enable and Fulfill International Requirements to Strengthen Partnerships and Alliances
  - ✓ Interoperability demonstrations on foreign platforms (Caesar, K9, AS90, PzH2000)
  - ✓ Foreign Military Sales/Direct Commercial Sales
  - ✓ Execute Co-development Project Agreements





# Industrial Base Feedback

## ➤ COVID 19 Impacts

- ✓ Supply chain disruptions (cost and schedule) starting to improve, keep communicating risks/issues as you see them
- ✓ Workforce stability (operators/engineers) is still an area of concern
  - Paradigm change for Remote work and Tele-work needed to be competitive
- ✓ Working with Army Contracting Command to review/mitigate impacts

## ➤ Assured Munitions initiative

- ✓ Black Powder issue is being worked by USG and Industry
- ✓ Assessing risks related to Ukrainian/Russia conflict
- ✓ Rising cost of energy is a new risk area
- ✓ Cyber threats on the rise
- ✓ Continuing to identify raw material sources and assessing risks/issues
- ✓ Looking to expand Industry involvement on risk identification/assessments/solutions
- ✓ Buy American policy is being assimilated

## ➤ Quality and Production Trends

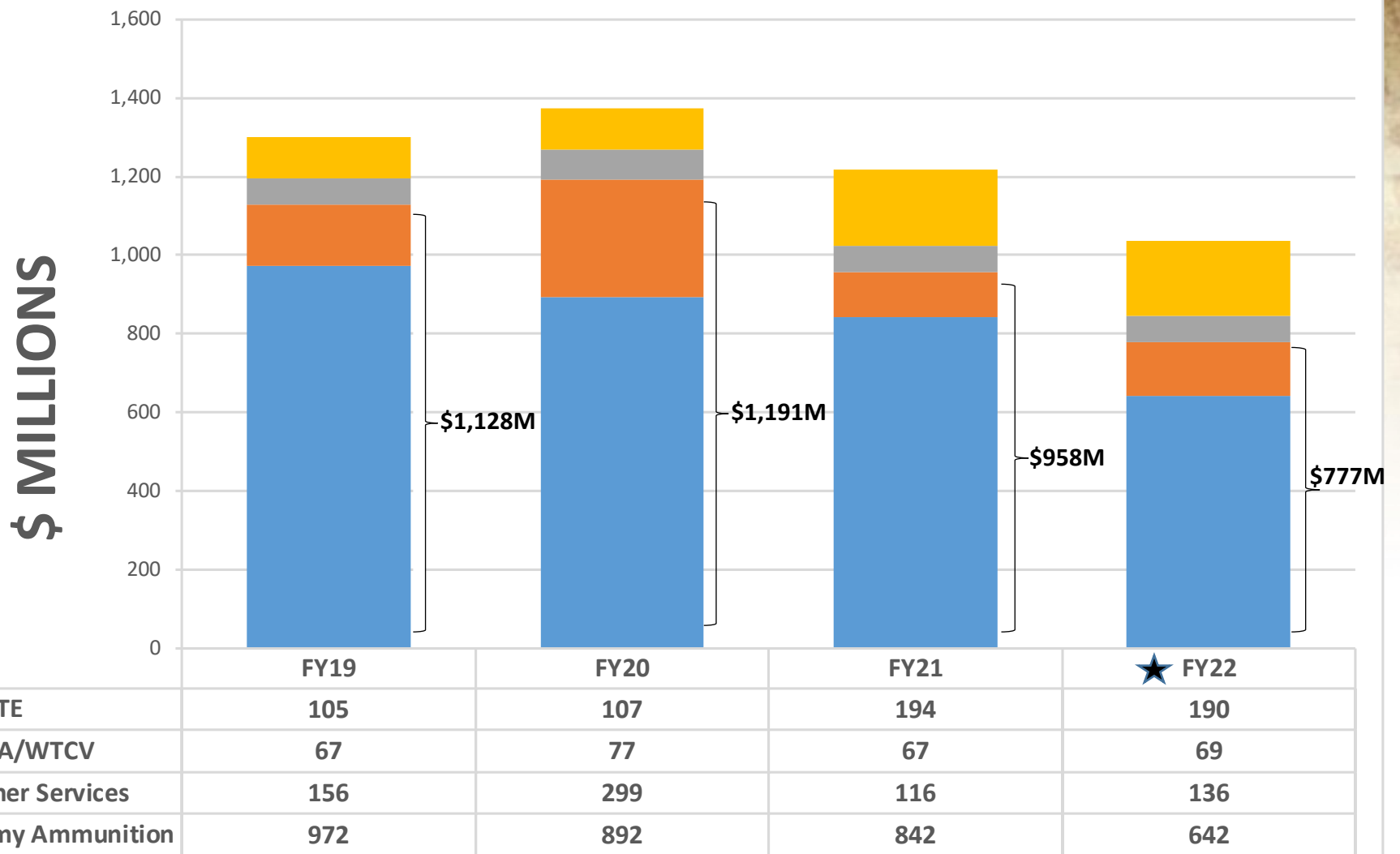
- ✓ Noticing an uptick in quality issues across the portfolio
- ✓ X-ray and UT expertise remains a watch item
- ✓ Achieve smart balance between development, modernization, and production work
- ✓ YPG continues to be a program constraint that needs to be planned for effectively
  - PM CAS continues to work on prioritization of testing and potential alternative test locations

**Appreciate NDIAs  
Feb 2022 Vital  
Signs report**





# All Services Funding PB22 (FY19-22)



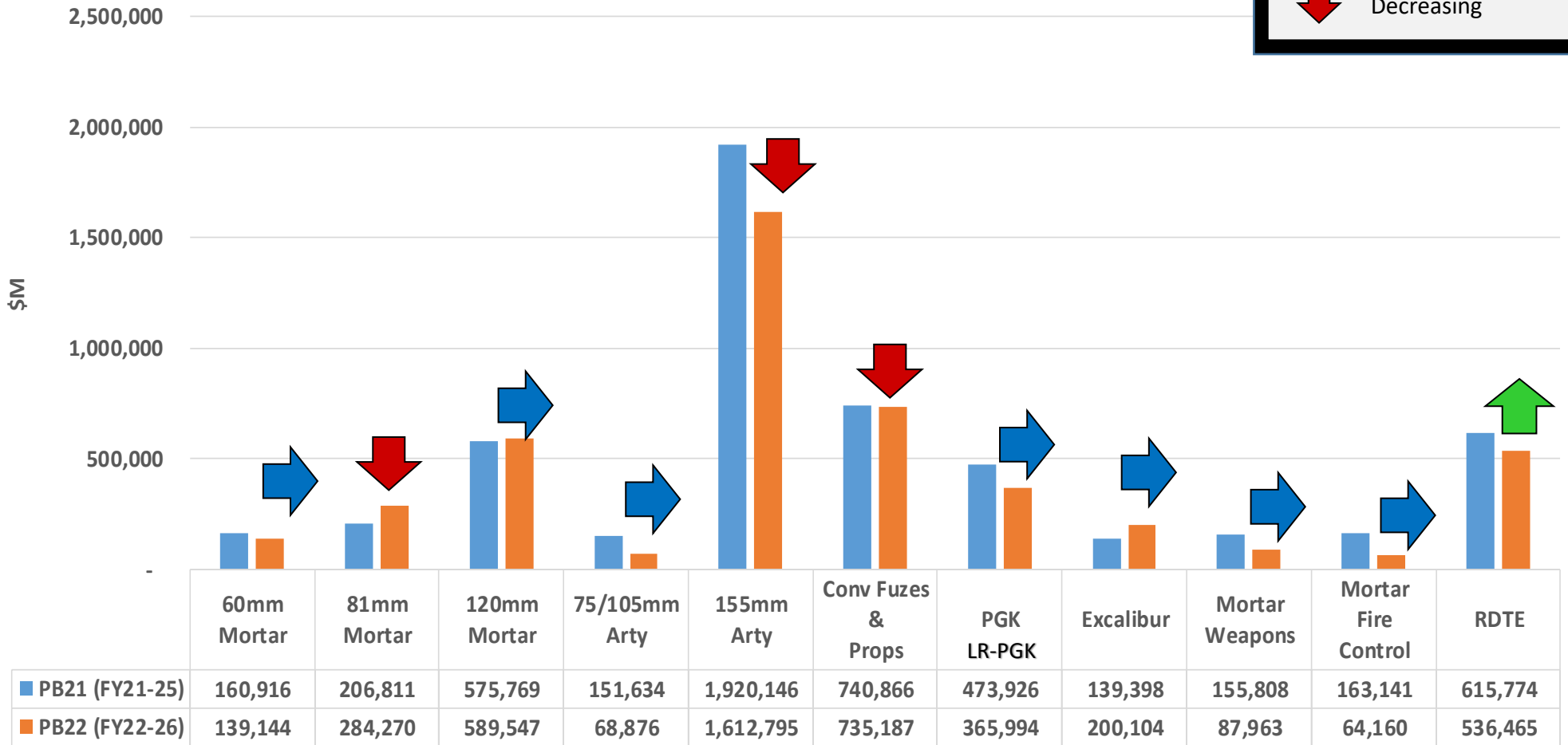
★ FY22 Reflects Changes Based on the Approved Omnibus



# President's Budget Comparison & Future Outlook (Army Only)

**Future PB23 Forecast:**

- Increasing
- Consistent
- Decreasing



Axis Title

■ PB21 (FY21-25) ■ PB22 (FY22-26)



# Future PM CAS Competitive Opportunities

Item	Acq Strategy	Projected Award	Total Value	Request for Proposal (RFP) Date/Remarks
Main and Drogue Parachutes (Mortars & Artillery)	Small Business	4QFY22	\$15.8M	RFP Projected Mar/Apr 2022
M67 Propelling Charges	US & Canada	4QFY22	\$78.7M	RFP Projected Mar/Apr 2022
M734/M783 Mortar Fuzes	US & Canada	1QFY23	\$412.8M	RFP Projected Mar/Apr 2022
M28B2 Primer	US & Canada	1QFY23	\$21.2M	RFP Projected Mar/Apr 2022
Mortar Fiber Containers	Small Business	4QFY22	\$6.55M	Invitation for BID Projected April 2022





# Future PM CAS Competitive Opportunities

Item	Acq Strategy	Projected Award	Total Value	Request for Proposal (RFP) Date/Remarks
60mm/81mm Body Tube and Tail Cones	Small Business	2QFY23	\$29.8M	RFP Projected April 2022
Projectile Gun Unit (PGU) 43B/44B/45B, M1 Cartridge	US & Canada	1QFY23	\$213.8M	RFP Projected May 2022
60mm/81mm/120mm Mortar FRPC LAP	US & Canada	1QFY23	\$132.7M	RFP Closes 16 May 2022
155mm, XM1128 High Explosive Metal Part Assembly	US & Canada	1QFY23	\$344.2M	RFP Closes 26 May 2022





# Future PM CAS Competitive Opportunities

Item	Acq Strategy	Projected Award	Total Value	Request for Proposal (RFP) Date/Remarks
155mm, XM1128 High Explosive, Load, Assemble & Pack	US & Canada	2QFY23	\$412M	RFP Projected May 2022
Mortar Fire Control System (FIRECON-Pro)	Full & Open	3QFY23	\$49.1M	RFP Projected May 2022
60mm/81mm Mortar Tail Fins	Small Business	2QFY23	\$49.1M	RFP Projected May 2022
Artillery Fiber Containers	Small Business	2QFY23	\$12.1M	Invitation for Bid Projected July 2022
60mm/81mm Shell Bodies	US & Canada	2QFY23	\$206.6M	RFP Projected August 2022
Artillery Fiber Containers	Small Business	2QFY23	\$12.1M	Invitation for Bid Projected July 2022



# Future PM CAS Competitive Opportunities

Item	Acq Strategy	Projected Award	Total Value	Request for Proposal (RFP) Date/Remarks
M751/M775/M781 Practice Fuzes	US & Canada	3QFY23	\$74.7M	RFP Projected August 2022
Meltable Fuze Plugs	Small Business	3QFY23	\$4.9M	RFP Projected August 2022
60mm/81mm/120mm Mortar Propelling Charges	US & Canada	4QFY23	\$499.2M	RFP Projected 1QFY23
60mm/81mm/120mm Ignition Cartridges	US & Canada	4QFY23	\$219.7M	RFP Projected 1QFY23
M739A1 Fuze	Small Business	3QFY23	\$128.9M	RFP Projected 1QFY23





# Additional PM-CAS Focus Areas

1. System level development of higher muzzle velocity producing propulsion systems
2. Projectile systems that can survive higher pressures and setback/setforward loads to take advantage of ERCA high pressure capability
3. Higher performing, and affordable, post launch propulsion to include rocket motors and base bleeds
4. Fuze Setting for ERCA Integration
5. Automated inspection and classification of explosive melt-pour, pressed, or cast cure defects using X-Ray or other Non-Destructive methods.
6. Manufacturing and test methods to allow for rapid technology insertion (e.g. Canister/MACE)
7. Mortar technologies – Range, lethality, advanced lightweight pointing devices and fire control
8. Improved M&S tools for Integrated Air Defense System (IADS) and A2/AD defeat



# Industry Takeaways

- Stabilizing production lines post COVID is an imperative
  - ✓ Workforce stability
  - ✓ Supply chain
- Development Program Affordability Remains Critical
- Agility needed to meet Army Futures Command requirements
- Industry/Government Partnership is key to mission success
  - ✓ New development programs quickly moving toward Urgent Material Releases and Production
- Cyber threat is real and a new warfighting function
- Continued support of FMS and DCS opportunities



**USG and industry learning and managing risks together,  
enabling faster transition to stable Production and Delivery**