

PROJECT MANAGER COMBAT AMMUNITION SYSTEMS

Munitions Executive Summit:
Where Expertise Counts
20 March 2024

Presented by:
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Project Manager Combat Ammunition Systems
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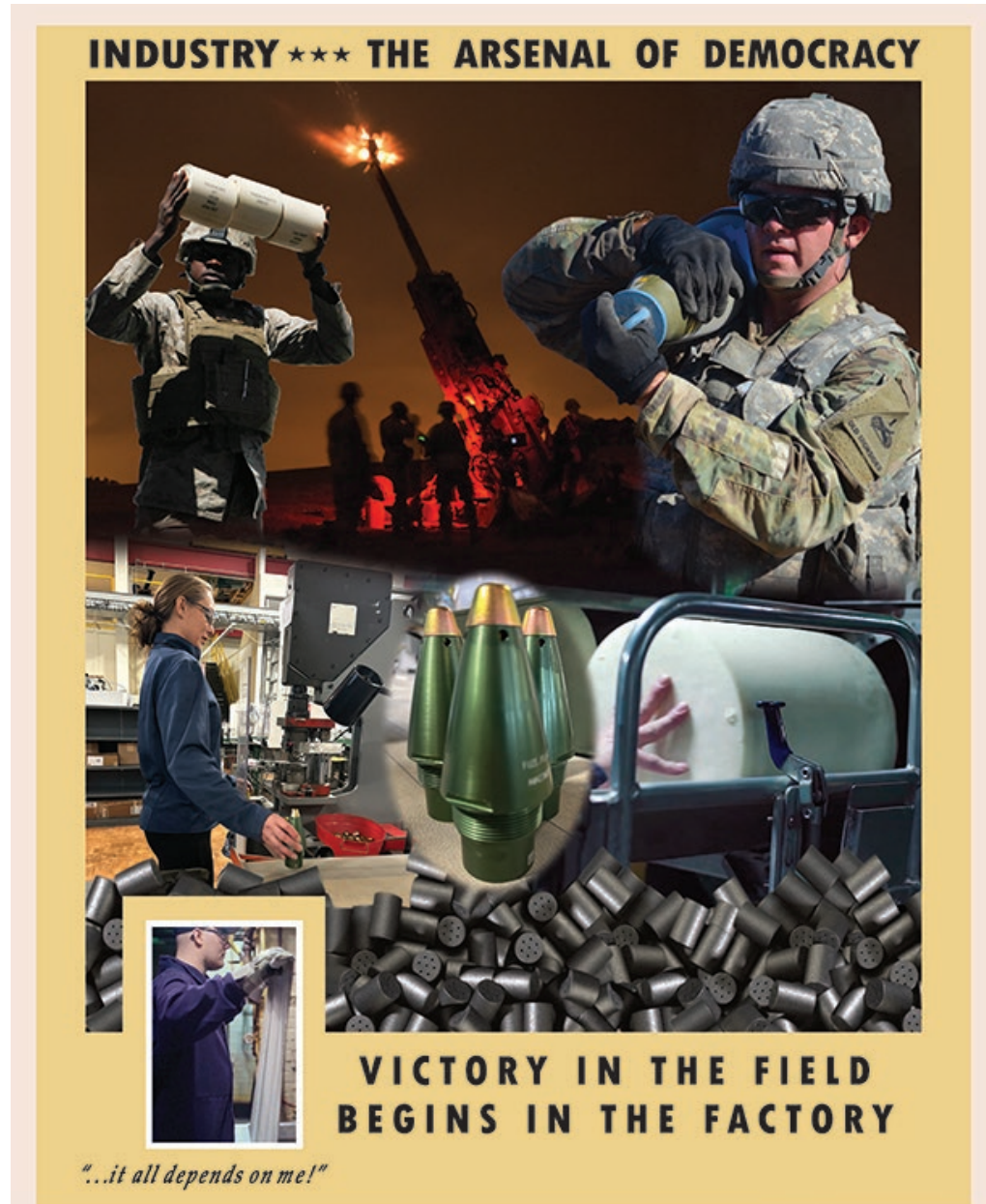


FORGING THE FUTURE OF INDIRECT FIRE



Agenda

- Organization and Priorities
- 155mm Mmunition Production Strategy
- Artillery Mmunition Interoperability
- Indirect Fire Mmunition and Weapon Modernization





PM Combat Ammunition Systems Organization



Project Manager
COL Leon L. Rogers II
973 724- 2003



Deputy Project Manager
Mr. Pete Burke
973 724-2110



Executive Assistant
Angela Prelich
973 724-7073

Product Support Manager
Shaji John
Chief Engineer
Jason Fultz
Test & Evaluation
Jacob Friedman



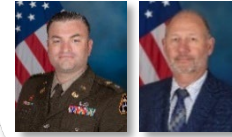
PdM Precision Attack Cannon Munitions
PdM, LTC Rafael Acevedo
973 724-1839
DPdM, Mr. Pete DeMasi
973 724-9066



- Excalibur Block Ia-1
- Excalibur Block Ia-2
- Excalibur Block Ib
- BONUS
- C-DAEM Armor
- C-DAEM DPICM Replacement



PdM Precision Fires & Mortars
PdM, LTC Ian Welch
973 724-4209
DPdM, Mr. Greg Bischer
973 724-2804



- Mortar Weapons and Fire Control
- Guided Mortars
- PGK
- PGK-E5
- LR-PGK
- EPIAFS/PEFCS




Conventional Ammunition Division
Chief, Ms. Penelope Metternich (actg.)
973 724-7727
APPI, Mr. Matt Glaser
973 724-9355



- Artillery Ammunition - M1128, XM1113 - ERCA Propulsion
- Mortar Ammunition
- Fuzes
- Energetics
- JMC Commodity Team




Business Management
Director,
Ms. Chary Isabel Hernandez
973 724-2619



- Conventional Ammo Branch
- Precision Munitions/ Weapons & Fire Control Branch
- Acquisition Planning Team
- Program Control Cell



International Programs
Director,
Ms. Lindsey Benjamin
973 724-2081



- Defense Export Policy
- Foreign Military Sales
- Project Agreements (NATO/bilateral)
- International Business Development and Relations



PM CAS Family of Products

11 Mar 2024



MACE



155mm ERAP



LR-PGK M1171/M1172



XM659 Stub Charge



M82E3 Primer



XM660 Stub Charge



MOFA II w Next Gen Prox



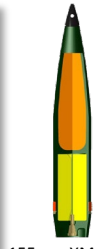
EPIAFS Modernization



XM655E1 Super Charge



XM1208 XM1180 C-DAEM



155mm XM1113, XM1210 RAP HE

ARTILLERY



M1156 PGK



M1155/A1 PIAFS/EPIAFS



M782 MOFA



M762A1 M767A1 ET



M739A1 PD/PDD



105mm M1 HE



105mm M314A3 M1064 IR Illum



105mm PGU 43/B TP 44/B HE 45/B



105mm M1130



155mm M110A2 SMK



155mm M485A2 Illum/M1066 IR Illum



155mm M107 HE



155mm MACS M232A1/M231



155mm MACS M232A1/M231



155mm MACS M232A1/M231



155mm M795 HE



155mm M549A1 RAP



155mm M1128 BB HE



M1123 IR/M1124 VL



Smoke M1121 WP



M1122



155mm M717 Copperhead



Excalibur Inc. 1a/1b M982/M982A1



155mm BONUS

Concept Development Production/Sustainment

MORTARS



120mm FERA



M32A2 LHMBC (Nett Warrior)



MTMS E81



M32A2 LHMBC (Nett Warrior)



XM395 APMI



Lightweight 60 & 81mm Mortar Systems



M326 Mortar Stowage Kit



M32/M32A1 LHMBC



M772



M776 MT Fuze



M224 60mm Mortar



M120/M121 120mm Mortar



MOFM M734A1/M783 Fuze

Smoke 60mm - M722A1 81mm - M819 120mm - M929

High Explosive 60mm - M720A1/M888/M768/M1061 81mm - M821A4/M889 120mm - M933A1/M934A1



VL Illum 60mm - M721 81mm - M853A1 120mm - M930



IR Illum 60mm - M767 81mm - M816 120mm - M983



Training 60mm - M769 81mm - M879 120mm - M931



M150 MFCS Dismounted



M1064 M95/M96 MFCS Mounted, Stryker AMPV

Concept Development Production/Sustainment



PM CAS Priorities

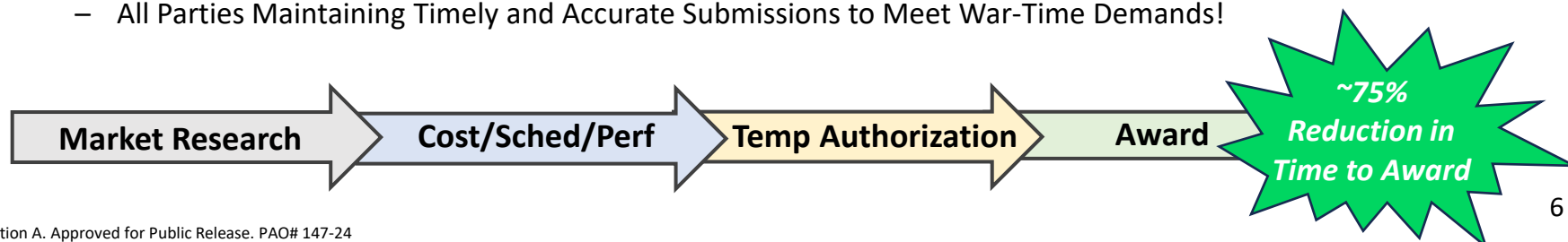
- Deliver Ammunition & Weapon Systems to meet or exceed Customer Required Delivery Dates for Mortars and Artillery
 - ✓ Support to Ukraine
 - ✓ Increase production capacity for 155mm munitions
 - ✓ Continued emphasis on Safety and Quality
 - ✓ Produce and field Second Source Mortar Cannons
 - ✓ Produce and field BONUS and M-Code capable Precision Guidance Kit (PGK) with Anti-Jam capability
 - ✓ Produce and field Cannon-Delivered Area Effects Munition (C-DAEM) Armor (XM1180) & DPICM Replacement (XM1208)
- Develop Long Range Precision Effects
 - ✓ Transition XM1113 and M1128 into production
 - ✓ Develop Long Range-PGK as the next-generation course correcting fuze
- Enable and Fulfill International Requirements to Strengthen Partnerships and Alliances
 - ✓ Interoperability demonstrations on foreign platforms (52 caliber)
 - ✓ Improve Interoperability / Interchangeability with Allied Partners
 - ✓ Foreign Military Sales/Direct Commercial Sales
 - ✓ Execute Co-development Project Agreements and support Cooperative Research and Development Agreements (CRADAs)





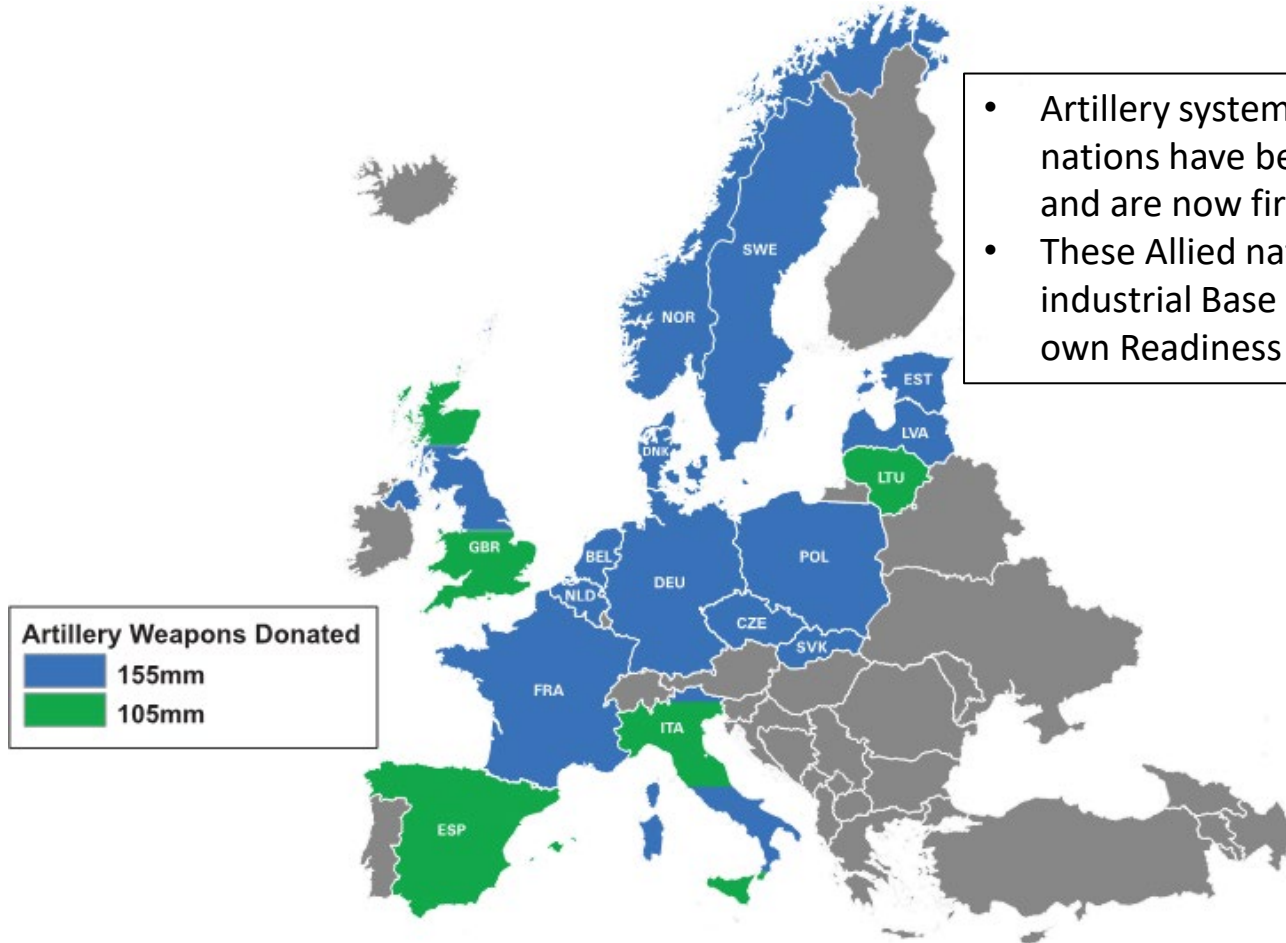
Acquisition Approach

- **USFY24 National Defense Authorization Act, Section 1242, Temporary Authorizations Related to Ukraine, Israel, and Taiwan**
 - Temporary Acquisition Flexibilities to Build or Replenish stocks of Critical Munitions
 - Authority expanded to include Ukraine, Israel, Taiwan, and supporting foreign partners
 - Allows for accelerated approval of limited source/competition for Public Interest
 - Temporary Authorization extended from Sept. 2024 to Sept. 2028
- **During USFY23, PM CAS has used authorities 17 times for Rapid Contracting Activities and Multi-Year Procurements, and will continue to do so for applicable projects**
- **Temporary Authority Outcome and Lessons-Learned:**
 - Reduction in Acquisition Lead Times by 75%
 - Cost Proposals Still A Challenge – FAR 15.408, Table 15-2-Instructions for Submitting Cost/Price Proposals When Certified Cost or Pricing Data Are Required
- **Key Takeaways:**
 - Market Survey Responses Require Actionable Information
 - ✓ Examples: Production Rates, Delivery Schedule Lead-times, Integrated Master Schedules, Rough Order Magnitudes, Capacity Increases, etc.
 - ✓ Inform Army Leadership of Industry Capabilities and critical-path to award and delivery to make acquisition decisions.
 - All Parties Maintaining Timely and Accurate Submissions to Meet War-Time Demands!





US Artillery Munitions Interoperability with Allied Nation Weapon Donations to Ukraine



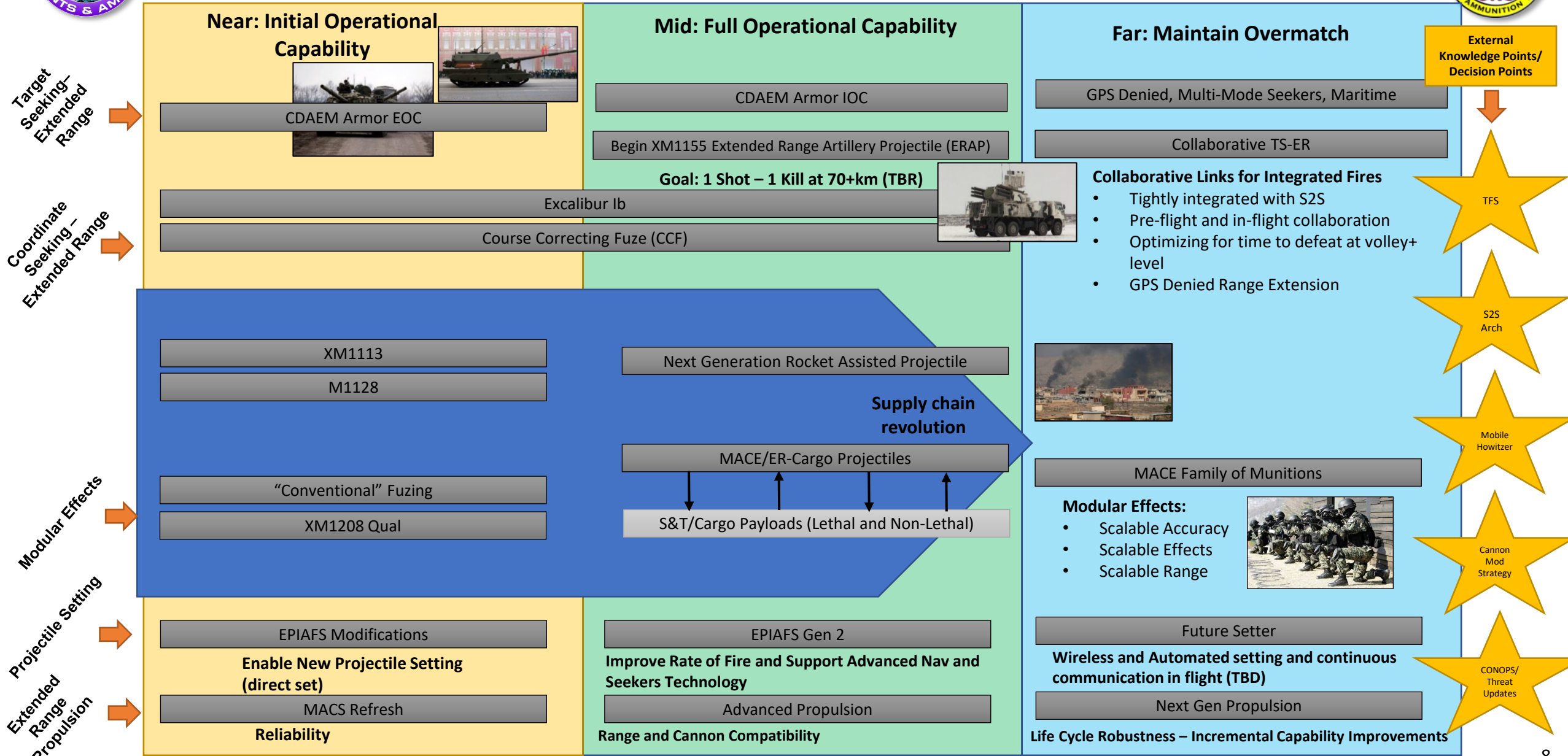
- Artillery systems from highlighted nations have been donated to Ukraine, and are now firing US munitions
- These Allied nations can leverage US industrial Base expansion to meet their own Readiness requirements (FMS)



Effort is now underway with DASA(DE&C) and NATO Support Procurement Agency (NSPA) to make 155mm munitions available to NATO Allies (FMS case), including opportunities for combined buys and sharing of US Munitions technical data



Artillery Ammo Modernization





PM-CAS Collaboration Opportunities



1. Improved Digital Engineering tools to enable more rapid product development and improvement.
2. System level development of higher muzzle velocity producing propulsion systems.
3. Projectile design and manufacturing capability to improve cannon compatibility and modularity.
4. Improved Tactical Rates of Fire and Time to Defeat through Projectile Initialization (e.g. “Fuze Setting”) and Autoloader Integration.
5. Automated inspection and classification of explosive melt-pour, pressed, or cast cure defects using X-Ray or other Non-Destructive methods.
6. Mortar technologies – Range, lethality, advanced lightweight pointing devices and fire control.
7. Upcoming Conventional Ammunition Competitive Solicitations:

NOMENCLATURE:	CONTRACT CEILING	ESTIMATED POP	STATUS:
105mm Wood Box	\$9.3M	FY24-28	RFP Target 3QFY24
Mortar Ignition Cartridges	\$219.7M	FY25-29	RFP Target 3QFY24
Mortar Metal Container	\$30.6M	FY25-29	RFP Target 4QFY24
TNT/PBXN-9 Supplemental Charges	\$97M	FY25-29	RFP Target 4QFY24
M82 Primer	\$129M	FY25-29	RFP Target 4QFY24
M739 Fuze Production	\$398M	FY25-29	RFP Target 1QFY25



Summary

- Significant expansion of 155mm munition capacity is underway with goal of >85K projectiles/month by 4QFY25
 - Limiting factor is worldwide supply of Energetics & Propellant
- US expansion in 155mm munitions offers options for Allied procurements (FMS) versus investing in their own industrial expansion
- “Innovating at the Round,” Through our modernization efforts
- More opportunities for industry to continue to “get in the fight”

