



Soldier Requirements Division



Fort Moore, Home of the MCoE



Small Arms 28 February 2024



Serve as the Department of Defense proponent for Small Arms Systems, Mortars, Close Combat Missile Systems, Beyond Line-of-Sight Systems, Shoulder Launched Munitions, Soldier Handheld Munitions and advocate for scalable effects

Soldier Perspective for Future Capabilities



Individual Weapons



Small Arms Ammunition Individual / Crew Served Weapon



Fire Control

- Sniper
- Spotting Scope
- CSW (M240L, Grenade Launcher)



Crew-Served Weapons



LT / MED MGs

Bursting Weapons





Desired Capabilities out to 2040



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Individual Weapons

- Precision Grenadier System (PGS) = Counter Defilade Target Engagement (CDTE)
- Individually employed as the Soldier's primary weapon system
 - Magazine-fed
 - Semi-automatic
 - Light-weight (Soldier carried)
 - Flat trajectory* key factor for employment considerations vs Max ORD munitions
 - Airburst technology to maximize lethal effects
 - Family of ammunition to optimize lethal effects against multiple target sets

Firefight ending capability



Desired Capabilities out to 2040



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Crew Served Weapons

- Platoon Arms and Ammunition Configuration (PAAC) study, completed September 2023- awaiting final briefings
 - Threat based study informs future of MMG requirement studying ammo, fire control, and weapon capabilities
 - Joint study (USMC, SOCOM, DEVCOMs, ARL...)
 - Study will inform senior leaders on potential FMMG courses of action
 - Final results expected 2QFY24, Supporting FY 24 MMG decision point
 - PAAC Study feeds into the Future Medium Machine Gun
 - FMMG will have increased range and lethality over existing M240 machine gun



Desired Capabilities out to 2040



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Suppression (Individual and Crew Served Weapons)

- Both visual and acoustic signature suppression for crew-served and individual weapons
- Visual signature is the priority (minimize localization of target by threat to improve survivability)
 - Reduce flash: visibility to naked eye
 - Reduce enemy detection (thermal) from their optics; short-, mid-, long- wave IR
 - Disturbed Earth: minimize 'dust up' of earth and other vegetation
 - Reduce suppressor blow-back to the shooter
 - Reduce impact on friendly optics, night vision devices, scopes, etc.
- Reduce acoustic signature to minimize enemy detection
 - Improve command and control: Below 140 dB
 - Mitigate Soldier hearing loss and exposure to blast overpressure
 - Increase Soldier survivability
- User level task to install, clean, PMCS suppressor

Firefight ending capability



Desired Capabilities out to 2040



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Optics

- Desired fire control system technology (cone of fire / beating zone references as a digital enhancement or overlay)
- Digital Fire Control systems across all platforms have a degraded Direct View Optic capability
- Optics able to see beyond MER of ammunition employed



Desired Capabilities out to 2040



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Sub-compact rifle caliber carbine

- More compact than current M4
- Rifle caliber able to penetrate soft armor
- Greater range and lethality compared to M17/M18 handgun
- Initially issued to PGS Grenadier as a secondary weapon



Desired Capabilities out to 2040



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Small Arms Ammunition

- Lightweight Small Caliber Ammunition (LSCA)
- Reduces Soldier load for one of their heaviest items – ammo
- Drop in solution for existing family of 5.56mm, 7.62mm and .50 CAL weapons
- No compromise in current capability
 - e.g. reliability, durability, ballistic effects, lethality, dispersion
- Use in all climatic zones
- Interested in Signature on Target ammunition to replace tracer ammunition
- Interested in C-UAS ammunition for all small arms



Desired Capabilities out to 2040



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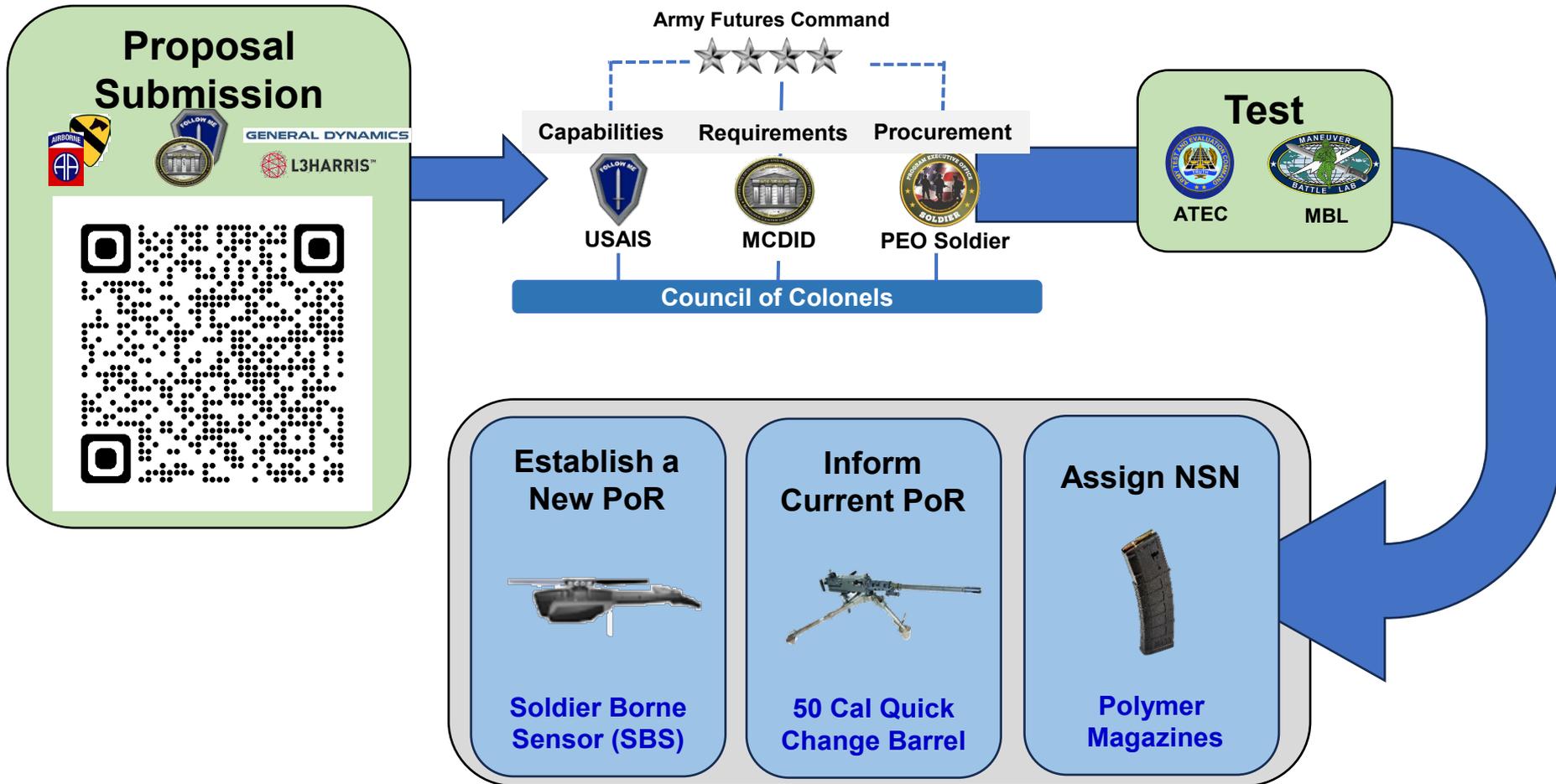
C-UAS Capabilities

- Interested in squad and platoon C-UAS capabilities
- Could be multiple projectile ammunition or other means to defeat UAS

Soldier Enhancement Program

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SEP is a congressionally mandated program established by the FY1990 National Defense Authorization Act (NDAA) to buy COTS / GOTS technology, allow Soldiers to try it in real world scenarios, and decide on applicability for the broader force.





Small Arms Points of Contact



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Questions?