



# Soldier Requirements Division

CUI



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## Lethality Branch – Firepower 28 February 2024





# Lethality Branch Mission

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**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*

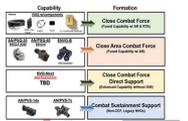


# Soldier Portfolio Programs

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## Firepower

### Limited Visibility Devices



Modernization Strategy



\*NVD-N



Legacy NVGs

### Rockets / Missiles / Grenades



Grenades, Smoke, Pyrotechnics)



Shoulder Launched Munitions



Javelin



### Weapon Sights/Enablers



STORM (PI,SLX,II)



ATPIAL PEQ-15



PAS-13 (TWS)



FWS-I



FWS-S



FWS-

Family of Weapon Sights

### Lethal Unmanned Systems



LASSO

### Mortars



60mm, 81mm & 120mm Systems



# Summary of Firepower Section Desired Capabilities out to 2040



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## Infantry Battalion Mortar System and Family of Munitions:

- Enhanced 81mm Cannon and Munitions
  - Extended Range  $\geq$  120mm Mortar System
  - Lethality  $\geq$  120mm HE (M934 A1)
- Increase Mobility & Survivability
  - Faster Emplacement & Displacement time
  - Conventional first-round accuracy (Non-seating baseplate)
  - Mortar Stowage Kit (MSK) that supports E81mm system that is modular with Tactical Vehicle
- Other Potential Opportunities
  - Suite of Mortar Rounds
  - Precision and Extended Range Munitions
  - Feasibility of an Enhanced 120mm Cannon and Munitions



# Summary of Firepower Section Desired Capabilities out to 2040



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## Night Vision Capabilities:

- Power solution that meet operational needs time for ENVG-B's
  - Current power supply (4ea. Lithium Batteries L91) last ~ 4 hours in most taxing mode
- New Army Requirement for a Night Vision Device - Next (NVD-N)
  - I2 Dual Tube
  - High (Figure of Merit) \*FOM
  - White phosphorus
- Improve PVS-14 performance
  - High FOM
  - White phosphorus

\*Figure of merit (FoM) is a number which gives a quantitative measure of a night vision device's effectiveness and clarity.



# Summary of Firepower Section Desired Capabilities out to 2040



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## Small Arms Targeting Strategy

- **Current State: Night/ Limited Visibility targeting & pointing capabilities**
  - Weapon Mounted FWS-I with ENVG-B provides passive targeting capability
  - AN/PEQ-15 with I2 Night Vision Device provides active targeting and pointing capability

## **Desired Capabilities**

- Small Light weight, low-cost solution that provides PEQ15 like capabilities
- IR Laser/ illuminator designed to match ENVG-B capabilities

## **Future targeting and pointing capability**

- Covert (ie. SWIR Laser and sensor)
- Passive (ie. Virtual)



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# Summary of Firepower Section Desired Capabilities (cont.) out to 2040



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## Soldier Munitions

- Bi-spectral / Multi-spectral obscuration
  - Short duration (~30 Sec)
  - Long duration (~90 Sec)
  
- Improved Tactical Obscuration Hand Grenade (Provides screening/density and duration  $\geq$  AN/M8 HC) that's Non-Toxic and Environmentally Friendly



# Summary of Firepower Section Desired Capabilities (cont.) out to 2040

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## Close Combat Missile Systems (Javelin/CLU)–Multi-target

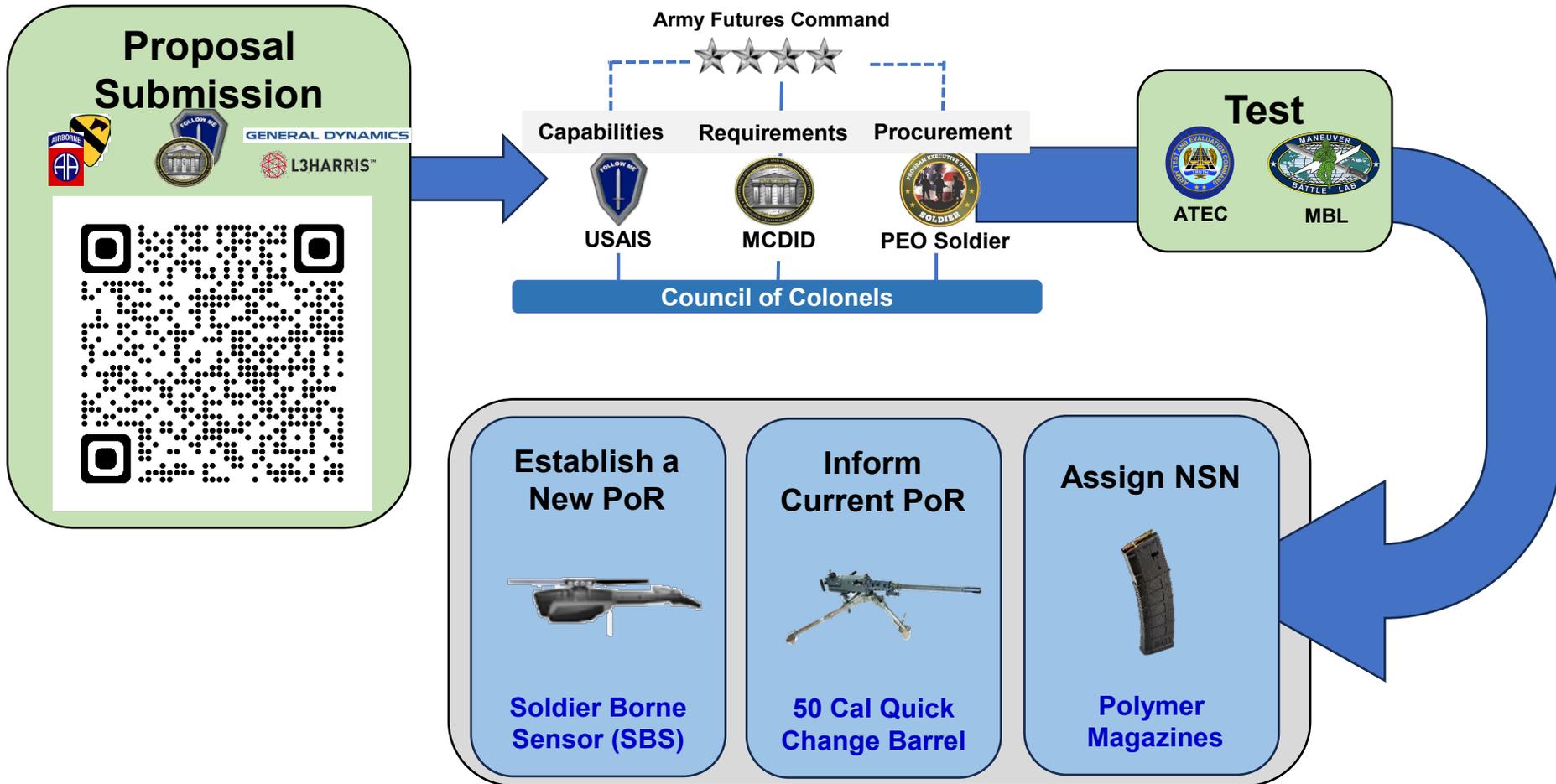
- Lightweight, man-packable, stabilized platform (Tripod) that supports employment of the CLU with or without Javelin missile
- Light Weight Command Launch Unit (CLU) Modularity - Ancillary devices that support the following:
  - Far Target Location
  - Ability to populate friendly and enemy locations on the network
  - Leverage Artificial Intelligence to increase ability to Detect, Recognize, and Identify.

# 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.





# Lethality Branch – Firepower

## Points of Contact



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# Questions?