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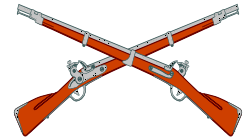
# Overall Small Arms Strategy



- ***Train the force***
  - Sustain increased frequency and realism of training
  - Resource training, support, and facilities
- ***Sustain the current small arms fleet***
  - Resource, rebuild, and refurbish to sustain the current fleet
  - Procure weapons to fill wartime and transformation needs
  - Product improve existing systems
- ***Modernize the force***
  - Develop next generation of weapon systems and ammunitions
  - Spiral new systems to the force as they become available



# Small Arms Strategy



## Near Term (2007-2009)

*Sustain through refurbish/rebuild, product improve, leverage off-the-shelf technology*



Rebuild M249s



Increase M4 Issue



Grenade Launcher Module



Modular Shotgun



1x Close Combat Optic (Rifle)



4x Machine Gun Optic



4x Rifle Combat Optic



PEQ-2

## Mid Term (2010-2013)

*Modernize by spiraling new systems against key gaps, initiating a common approach*



Personal Defense Weapons (PDW)



Future Handgun System (FHS)



Multi-Purpose Sight 1x-4x (Rifle & LMG)



Improved PEQ-2



TWS II

## Far Term (beyond 2013)

*Integrate new technologies; reduce Soldier load, improve lethality, and improve small unit flexibility*



Commonality / Family Concept

Light Weight Small Arms Technology (Caseless/CTA Ammo)

Counter-defilade technologies



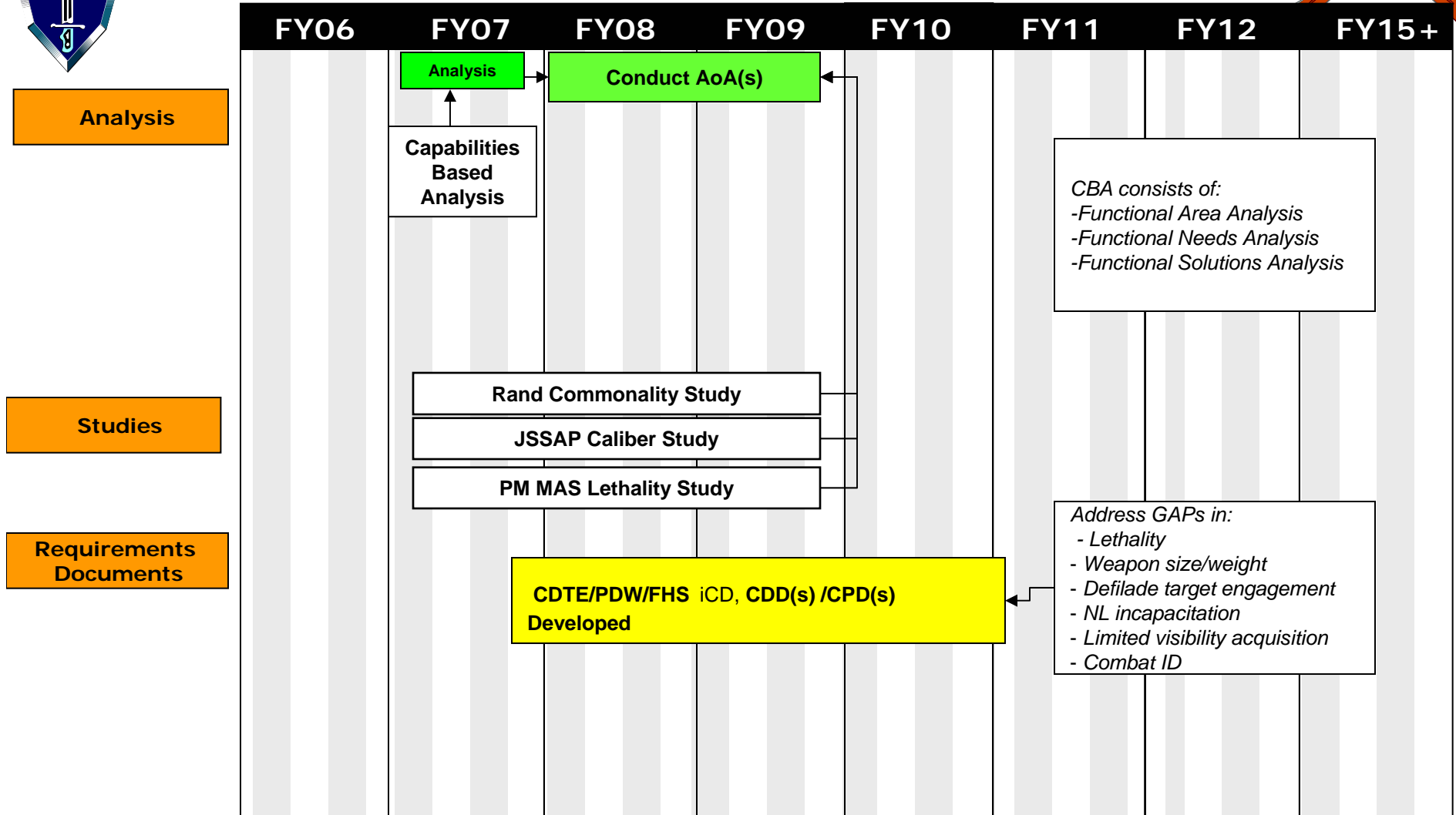
Conceptual Fused I2/Thermal Weapon Sight



Day/Night Sight with Fire Control



# Strategy Supporting Efforts



***Develops more lethal and effective future systems based on appropriate analysis and emerging advanced technology***



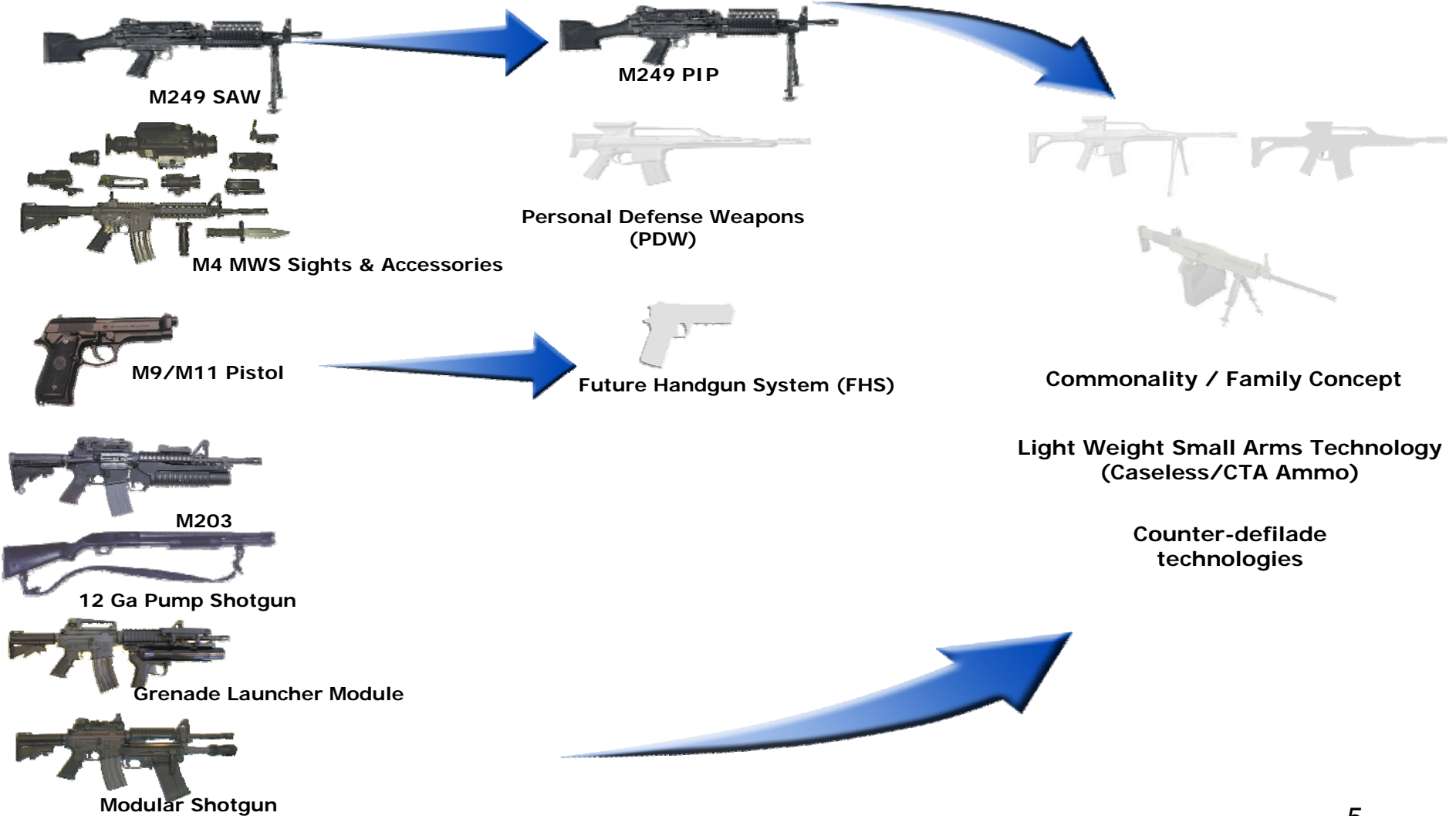
# Individual Small Arms Strategy



Near Term (2007-2009)

Mid Term (2010-2013)

Far Term (2014 and beyond)





# Crew Served SA Strategy



Near Term (2007-2009)

Mid Term (2010-2013)

Far Term (2014 and beyond)



M240H



M240B



M2



MK19



M107



M24



Semi-Automatic  
Sniper Rifle



M240E6



M2A1

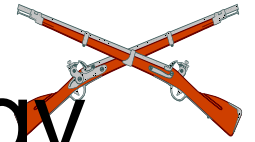


Future Crew-Served Weapon  
Capabilities  
(Pending Further Analysis)





# Small Arms Ammunition Strategy



## Near Term (2007-2009)

***Increase Warfighter lethality and training capability***



Field an improved 5.56mm cartridge



40mm Fleschette cartridge



Close Combat Mission Capability Kit



XM1022 .50 sniper

## Mid Term (2010-2013)

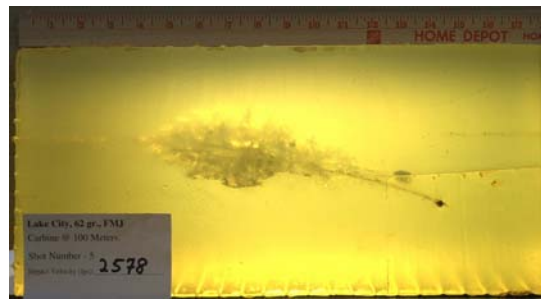
***Increase Warfighter survivability and develop predictive tools***



Implement reduced flash propellants



40mm Improved Performance Round



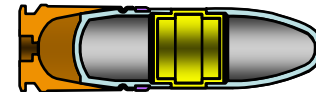
Small Caliber Effectiveness Assessment Program

## Far Term (2014-)

***Significantly greater effectiveness & lighter weight systems***



Potential Alternate Rifle Caliber



Bursting Munitions



Light Weight Technologies



# M249 SAW Sustainment Strategy



## Proponent:

HQ AMC

## Staff lead:

COL Bates,  
AMC G3

## Staff assist:

DA G3, G4, G8,  
TRADOC

Summary: TRADOC identified M249 SAW #1 priority for improvement in 23 Jan 06 AROC.

Background: --Resulted in VCSA tasker to AMC to develop M249 Sustainment Strategy.

--M249 SAW fielded in 1984. Approximately 88,300 in Army use.

-- New weapon production 750/mo; 350/mo overhaul.

-- Soldiers view M249 as a reliable, effective weapon when new/overhauled but current fleet is old and worn out.

--**Repair and Return Approved by VSCA on 5 May 06**

353  
M249s/  
IBCT

Repair Options	Features	Cost/wpn	Cost/IBCT
<b>SARET</b>	Unit location. Repairs to 10/20 stds.	\$135	\$ .05 M
<b>Repair and Return</b>	Bi-weekly pickup and return of assets by depot. Repairs to IROAN standards	\$2698	\$ .9 M
<b>Depot Overhaul</b>	Repairs to full DMWR stds. Units turn in assets. Two month min. RCT.	\$3141	\$1.1 M
<b>New Production</b>	Produced to new weapon specification. Limited by OEM capacity.	\$3103	\$1.1 M

Required Decisions	Recommendations
Repair Option	<ol style="list-style-type: none"> <li>1. Extend R&amp;R program to all re-deploying units at \$1mil per IBCT up to depot capacity of 100 weapons per week.</li> <li>2. Use SARET to inspect and repair lower priority weapons when exceeding depot capacity.</li> </ol>

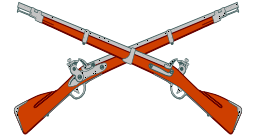


Risk Analysis/Justification: Need to restore soldier confidence in this weapon.





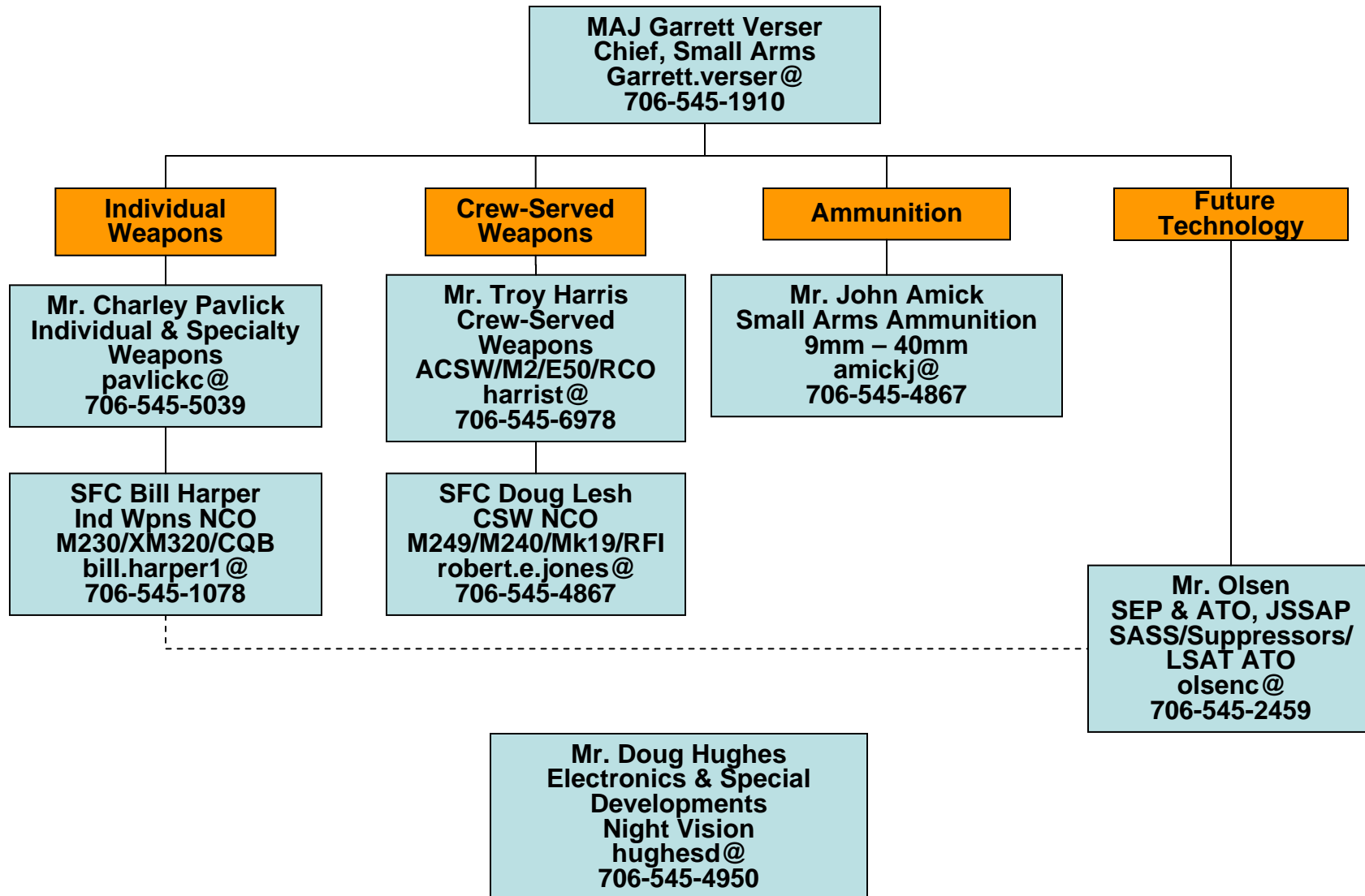
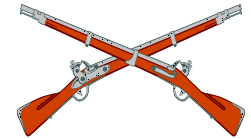
# Areas of Interest



- Reduce Weapons Size, Weight, and increase capability
- Weapon Product Improvement
- Commonality of Parts, Ancillary Equipment, and Ammunitions
- Sound and Flash suppression
- Counter-Defilade Defeat Technologies
- Fire Control, Day, Night, and Fused Optics
- Personal Defense/Offense Weapons



# Points of Contact



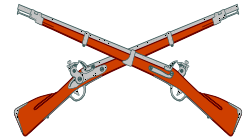
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# Backup



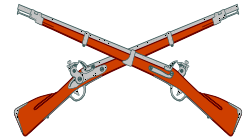
# Rand Commonality Study



- **Purpose** Inform Army efforts to develop materiel requirements by assessing the costs, risks, and benefits of developing and fielding common families of systems.
- **Problem**
  - Army and DoD are increasingly developing families of systems: sets of end items built around common platforms.
  - Army has been pushing recent vehicle platforms in this direction based upon expected logistics advantages as well as reduced development and procurement costs.
  - From a military standpoint, platform commonality has the potential to increase risk by sub-optimizing operational capabilities in order to achieve cost savings and improved supportability.
  - Army needs to gain a better understanding of how commonality provides benefits and imposes costs and risks so that it can better determine when to make commonality a key design constraint and how far to take it.
- **Summary** This project will develop lessons for the Army that can be applied when developing materiel requirements and recommend a framework for evaluating the costs, risks, and benefits of commonality in future development efforts, both at the system level and at the component level.



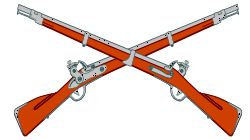
# Lethality Study



- **Began:** JAN03-DEC05
- **Organization:** PM-MAS / ARL / ARDEC / JWB IPT
- **Sponsor:** PM-MAS
- **Summary:** A Joint IPT with strong support from science community answered Infantry Center concerns over inconsistent 5.56mm performance in CQB and allegations of better performing rounds available commercially
- **Findings:**
  - There Is No Significant Difference Between M855 And Commercially Available 5.56mm Rounds
  - Shot Placement Far Outweighs The Minor Differences Among Rounds
  - Weapon-bullet Interaction Varies Greatly And Affects CQB Performance
    - **Outweighs Differences In Ammunition Type**
    - **Causes Variation In Soldier Experience**
  - There Are Techniques That Can Increase 5.56mm Lethality Now
  - Community to develop baseline performance for current systems, and develop predictive analysis tools as the next step.



# JSSAP Caliber Study

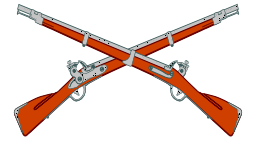


- **Began:** July 2006
- **Organization:** ARDEC AMSRD-AAR-AEM-I
- **Sponsor:** Joint Service Small Arms Program (JSSAP)
- **Summary:** The purpose of this study is to determine the tradeoffs associated with increasing the lethality over the current M16 series of rifles and carbines and ultimately the possibility of using a single round of ammunition in the rifle squad. The research effort will be a theoretical study to assess the performance trade space that is associated with various calibers and cartridge designs.
- **Progress:** Multiple key performance areas have been identified and the data from past testing is being assessed to determine trade offs and capabilities.





# Small Arms Capabilities Based Assessment



- **Began:** 28 September 06
- **Organization:** USAIC DCD SAD
- **Sponsor:** Joint Services Small Arms Program
- **Summary:** The Small Arms CBA will support the Army Small Arms Strategy, consolidating existing analysis, considering individual, crew-served, and mission specific small arms weapons by 30 Mar 07.
- **Findings:** TBD