



Project Manager Soldier Weapons

# The Soldier

*Our Strength and Purpose*

## PM Crew Served Weapons LTC Paul E. Alessio



2 June 2015



# Product Manager Crew Served Weapons



## Current

**M24**  
Mini  
Binocular

**M22**  
Binocular

**M25A1**  
Stabilized  
Binocular

**M145**  
Machine Gun  
Optic



**M2010**  
Enhanced  
Sniper Rifle  
(ESR)



**M14**  
Enhanced  
Battle Rifle  
(EBR)



**M110**  
Semi-Automatic  
Sniper System  
(SASS)



**M107**  
Long Range  
Sniper Rifle



**M249**  
Squad Automatic  
Weapon (SAW)  
5.56mm



**M240B**  
Medium  
Machine Gun  
7.62mm



**M240H**  
Medium  
Machine Gun



**M240L**  
Medium  
Machine Gun  
7.62mm



**MK19**  
Grenade  
Machine  
Gun  
40mm



**M2**  
.50 Caliber  
Machine Gun



**M2A1**  
.50 Caliber  
Machine  
Gun



**M153**  
Common  
Remotely  
Operated  
Weapon  
Station  
(CROWS)



**M192**  
Lightweight  
Tripod



**M205**  
Lightweight  
Tripod

## Near Term



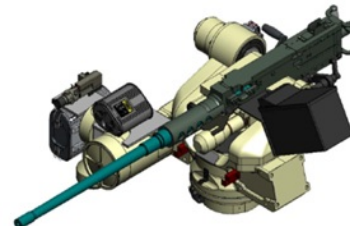
**Compact Semi-Automatic  
Sniper System (CSASS)**



**M3 Carl Gustaf  
(MAAWS)**



**Non-Standard  
Weapons**



**CROWS Low Profile  
& CROWS INC II**



**XM1116**  
12 Gauge  
Extended Range  
NL Cartridge



**XM1112**  
40mm Airburst  
NLM (ANLM)



**Mounted  
Machine Gun  
Optic (MMO)**

## Future

Ammo and Configuration  
Study Feeds Common  
Caliber Crew Served Weapon  
and Lightweight Medium  
Machine Gun



**NOTIONAL**  
Common Caliber Crew  
Served Weapon



**NOTIONAL**  
Lightweight Machine Gun – Medium



**Externally Powered Weapon**



**NOTIONAL**  
Lightweight Machine Gun – Heavy



**Precision Sniper Rifle**

**Fire Control**



**Crew  
Weapons**



**Precision  
Weapons**

*“Provide premier Soldier weapons systems enabling battlefield dominance”*



# PM CSW Path Forward



- Near Term:
  - Continue to increase capability by introducing product improvements including advanced enablers (i.e., optics), lightweight materials, and ammunition improvements to legacy weapons
  - Continue efforts to inform new requirements
  - Support configuration study to establish better requirements reducing user error budget (Fire Control, Optics, Stabilized Mounts etc)
  - Field commercially available Fire Control Technologies
- Mid Term:
  - Integrate technology advances from S&T programs into current and next generation small arms systems
  - Track and leverage S&T projects for solutions that meet Volume Effects gaps
  - Fire Control Program of Record
- Far Term:
  - Apply emerging (“revolutionary”) technologies to the design /development of totally new types of weapons including command/self guided systems and directed energy solutions if soldier portable



# M249 Then and Now



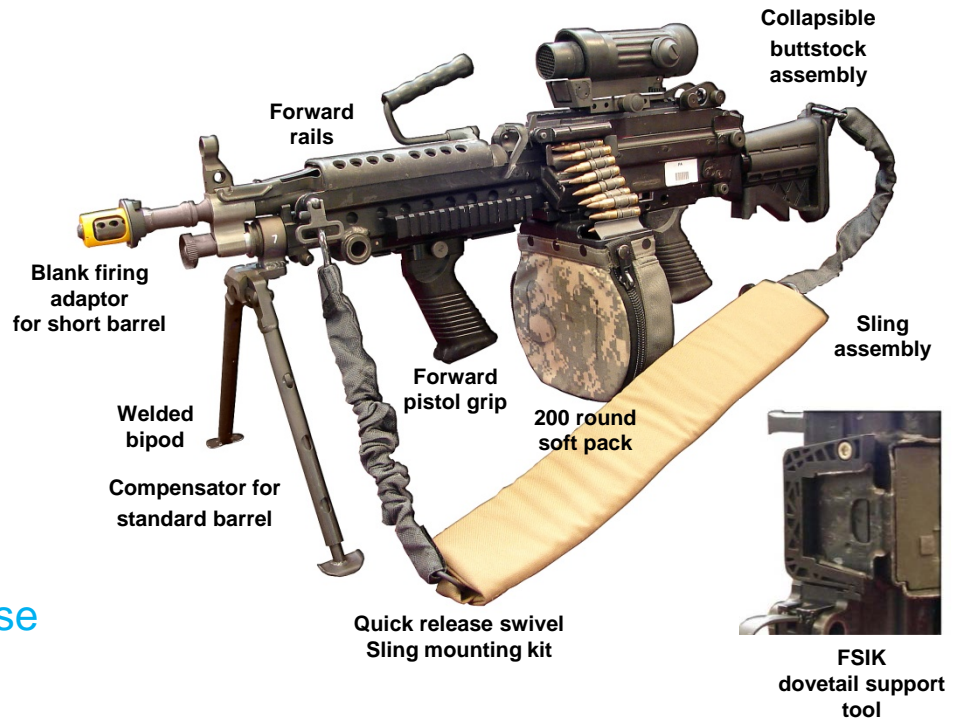
Then (1984)



*25 Major Performance-related Engineering Changes Since 1984*

- Extractor improved
- Gas system redesign
- Hydraulic Buffer
- Improved trigger guard
- Improved Barrel heat shield
- 100 and 200 round soft packs
- Feed tray cover rail
- Improved bipod
- Forward Rails
- Short Barrel and BFA
- Collapsible Buttstock
- Lightweight charging handle
- Lightweight feed tray
- 3.25" shorter
- Improved capability with no weight increase

Now





# M240 Then and Now



Then (1994)



M240B

*16 Major Performance-related Engineering Changes Since 1998*

- Hydraulic Buffer
- Front Accessory Rails
- Combat Ammo Pack
- Improved sling
- Improved barrel bag
- Collapsible Buttstock
- Short Barrel
- Titanium Receiver
- (5.8 lbs lighter and 4" shorter)

Now



M240L



# M2 Then and Now



Then (1933)



*Quick Change Barrel Upgrade  
1<sup>st</sup> Major Significant  
Engineering Change Since 1933*

- Quick Change Barrel with integral handle
- Fixed Headspace and Timing
- Flash Hider

Now





# MK19 Then and Now



Then (1968)



*Mod Kit is the first significant upgrade since 1968 and has been fielded Army wide*

Completed fielding in FY08

- TWO-PIECE COCKING LEVER
- FIRING PIN SEAR AND FIRING PIN
- ADJUSTABLE SECONDARY DRIVE LEVER
- DOVETAIL FOR MOUNTING ADJUSTABLE SIGHT BRACKET

Now



FUTURE: MK19 GMG, Mod 5

- NEW MK19 BARREL
- NEW VERTICAL CAM
- NEW ROUND POSITIONING BLOCK
- NEW COCKING CAM AND LEVER
- NEW MECHANICAL SIGHT



# Tripods Then and Now



Then



M122A1



M3 Tripod

Now



M192  
6.5 lbs lighter



M205  
16 lbs lighter

- Integral T&E mechanism allows for one-handed operation
- No Adaptors required

**Strength, Stability, and Reduced Weight**





# Precision Weapons Then and Now



M24 SWS



CSASS  
(Replaces M110 SASS)



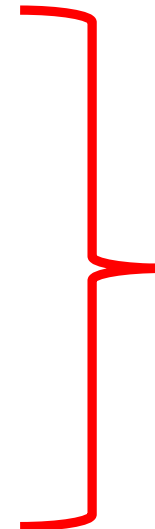
CSASS is sustained/maintained as the  
Sniper Support Rifle  
(Primary Spotter capability)



M110 SASS



M2010 300mag  
M24 Upgrade (HQDA Directed Requirement)



M107 50cal



7.62 300 338  
PSR

Multi-Caliber Sniper Weapon System, enhanced accuracy, enhanced optics, increased ergonomics, increased sustainability, reduced signature, to act as a dual purpose (anti-personnel and anti-materiel) capability replacing the M2010 and M107 when developed through increment 4 of requirement

\* JOINT Interest program \* Army/SOCOM



# CROWS



CROWS



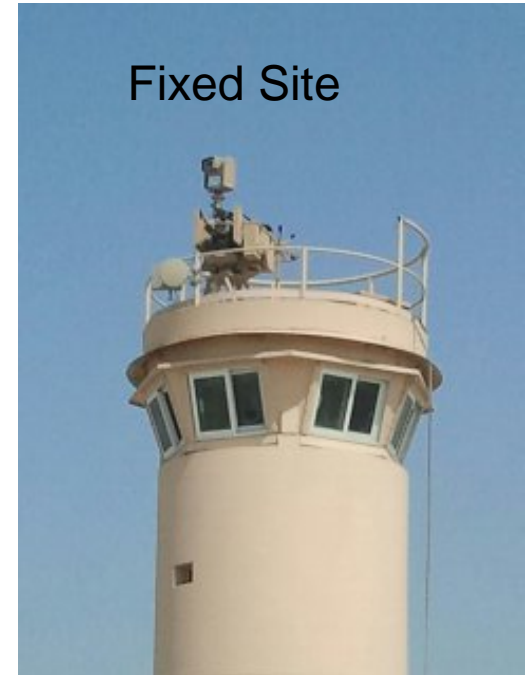
Low Profile  
& INC II



Containerized  
Weapon System



Handheld  
Control Grip



Fixed Site



# Fire Control, Crew Served & Precision



- **Description:**
  - Integrated fire control optic consisting of direct view optic, ballistic module, atmospheric sensors, range finder, and in-scope display overlay
- **Requirement:**
  - Draft Capability Development Document (CDD) in process
    - Squad, Precision, and Crew Served as one CDD with separate Engineering and Manufacturing Development efforts
    - Squad, Precision, and Crew Served as three separate Capability Production Documents CPDs with Production and Deployment efforts
- **Acquisition approach:**
  - Full and Open Competition to award contract for a development effort



Precision: PSR and CSASS  
Crew Served: M2 and MK19, M240  
Industry Day #1, Aug 2015  
Requirement approval, 4QFY16