



Project Manager Soldier Weapons

The Soldier

Our Strength and Purpose

PM Individual Weapons LTC Shawn Lucas

12 November 2013

PM IW Portfolio



Current



M4 w/ M203
Grenade launcher



M4 w/ M320A1
Grenade Launcher



M320
40mm Grenade
Launcher
Stand-alone



M26
Modular Accessory
Shotgun System
(MASS)
Stand-alone



M4 w/ M26
Modular Accessory
Shotgun System
(MASS)



M4/M4A1
Product Improvement
Carbine



M2010
Enhanced
Sniper Rifle (ESR)



M14
Enhanced
Battle Rifle (EBR)



M107
Long Range
Sniper Rifle



M110
Semi-Automatic
Sniper System
(SASS)



M68
Close Combat
Optic (CCO)



M150
Rifle Combat
Optic (RCO)

Developmental



XM25
Counter Defilade
Target Engagement
(CDTE) Weapon System



Subcompact



Modular Handgun
System



Precision
Sniper Rifle



Compact Semi-Automatic
Sniper System (CSASS)



Squad Common Optic (SCO)

“Provide premier Soldier weapons systems enabling battlefield dominance”



Precision Effects Path Forward

Notional



POM 14-18

FY19-FY27

FY28-FY48

M110
AAO: 3,643



CSASS
AAO: 3,643



SDM
AAO: ~11,000



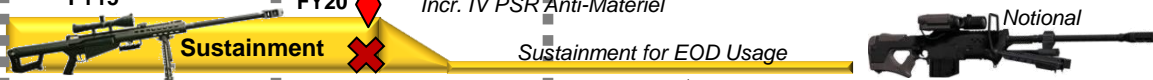
M2010
AAO: 2,520



PSR
AAO: 2,520



M107
AAO: 3,396



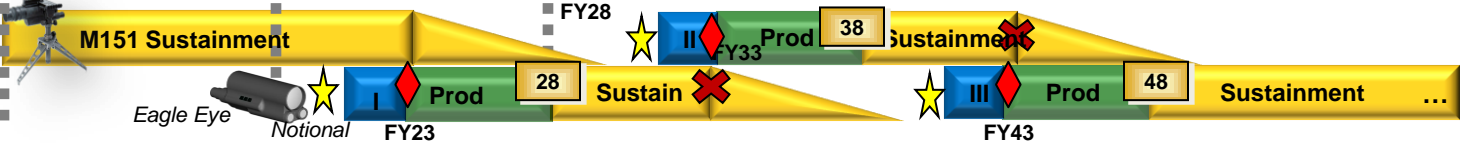
FSR
AAO: 2,520



Sniper Rifle FC
AAO: 2,520



Spotting Scope
AAO: 3,643



- EMD/Qualification
- Decision Point
- Production to Sustainment
- Transition Point Divestment (Div)
- New Start

Critical Elements of Analysis

1. Precision Effects to be more dependent on emerging Fire Control technologies for greatly enhanced shooter performance & effectiveness
2. Multi-caliber PSR provides increased performance and versatility via METT TC configurability yielding lower O&M costs and greater Ao
3. The Depot lacks the capability to determine the life and usage of the sniper weapon when returned.

Decision Points

1. Each decision point, need to assess S&T initiatives, documented requirements, and affordability

Future Goal is Modular, Complimentary & Versatile Precision Systems

Compact Semi-Automatic Sniper System (CSASS)



■ **Description:**

- Compact and lighter weight 7.62mm SASS, with shorter barrel, collapsible buttstock, new suppressor, and new optic
- Provides a more full-spectrum and versatile SASS to sniper teams without sacrificing performance, accuracy and reliability

■ **Requirement:**

- SASS Operational Requirements Document (ORD), Jun 2004
- MCoE Letter of Clarification, Feb 2012

■ **Desired Capabilities:**

- Reduce Soldier load, improved ergonomics, survivability, portability and decreased "felt" recoil
- Maintain a high level of precision needed to effectively engage enemy combatants



- ✓ Draft Request for Proposals (RFP) released, Nov 2012; closed Jan 2013
- Final RFP to be released, Jan 2014; closes 60 days
- 10 Bid samples required along with technical and cost proposals
- Down-selection activity, Mar-Aug 2014
- Contract Award, Oct 2014

Lightening the load while improving ergonomics for Snipers



Modular Handgun System (MHS)



- **Description:**
 - Handgun system with improved lethality, target acquisition, ergonomics, reliability, durability, and maintainability
- **Requirement:**
 - US Army adoption of the USAF CPD, Oct 2013
- **Desired Capabilities:**
 - Increase lethality, accuracy and reliability
 - Modularity aspect may include:
 - Capability to change barrel and slide lengths
 - Interchangeable frame and/or grip dimensions
 - Ability to configure/re-configure for diverse mission sets and users
 - Accessory ready: aiming lasers, illuminators, suppressors, and others



- Industry Day, Dec 2013
- 2nd Industry Day, Feb 2014
- Draft RFP, May/June 2014
- 3rd Industry Day, Jun 2014
- Release Final RFP, Jul 2014

Improving lethality for Soldiers



Grenadier Sighting System (GSS)



■ **Description:**

- The GSS provides the Soldier with the ability to quickly and accurately engage targets with the M320/M320A1 Grenade Launcher day or night

■ **Requirement:**

- Requirements being revised as a result of feedback received during the Industry Day in Jul 2013

■ **Desired Capabilities:**

- Mounts to the M4 Carbine forward rail when the M320 is in the underbarrel configuration as well as compatible centerline mounting bracket for mounting the GSS on the M320 in the standalone configuration.
- Capable of multiple ballistic solutions which can be differentiated by the user and updating ballistic solutions/markings to incorporate changes



- Industry Day, Jul 2013
- RFI released via Fed BizOps, 1QFY14
- Industry Day, 3QFY14
- Final RFP, 3QFY14

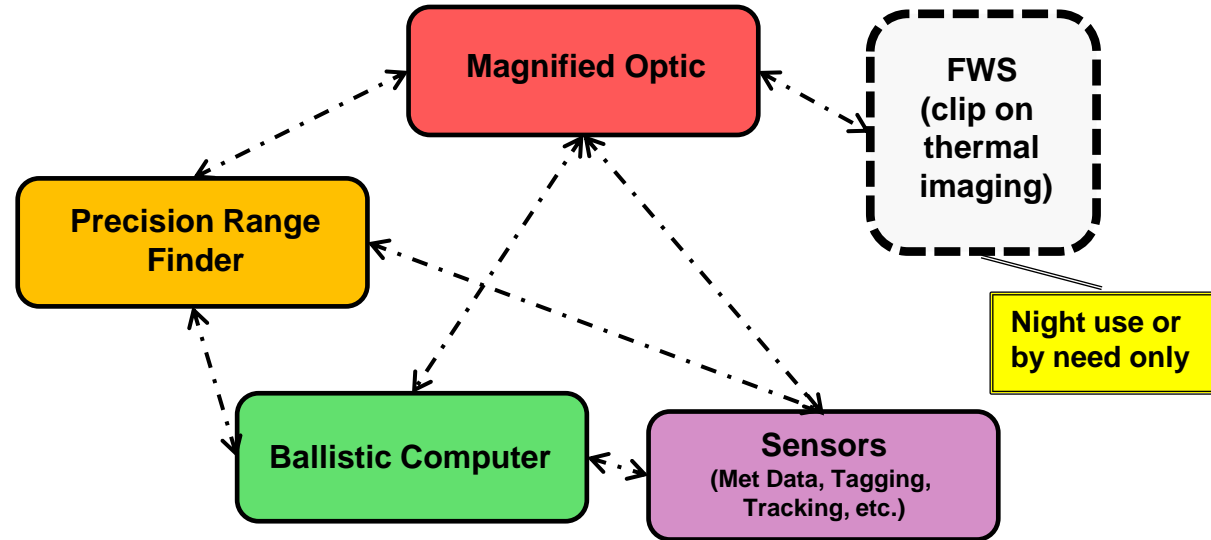


Future Fire Control Technologies



Goals:

- Range Determination
- Target Recognition
- Target Tagging
- Target Tracking
- Incident Firing
- Platform Stabilization
- Net Ready (Intra-Soldier)
- Integrated yet Modular (Built as a system but replaceable components)
- MET data
- Digital overlay within DVO
- Ballistic computation with environmental factors
- Disturbed reticle
- Acceptable Cost
- Weight

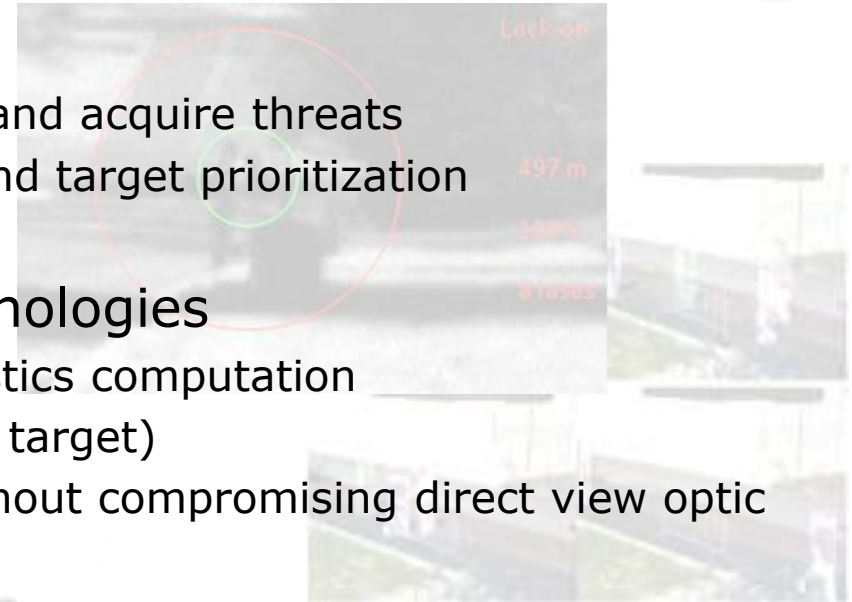


Future fire control and optics should be built around a modular concept consisting of an optic, a range finder, a ballistic computer, a limited visibility unit, and an appropriate suite of sensors, where each module can be upgraded or replaced independent of the other modules (open system architecture). Critical to the system is a Direct View optic that requires zero power to operate. **The modules can be integrated through any means as long as they are able to be replaced and upgraded independently.**

Small Arms Fire Control Technology Needs



- Enhanced Target Acquisition
 - Improved ability to detect, situate, and acquire threats
 - Systems to enhance identification and target prioritization
 - Tools to aid in damage assessment
- Enhanced Ballistic Solution Technologies
 - Accurate, verifiable, updatable ballistics computation
 - Environmental sensors (local and at target)
 - Display firing solution to Soldier without compromising direct view optic
- Closed Loop Fire Control
 - Tracking of last shot, to allow compensation on follow-up
 - Control and programming of programmable ammunition
- Accurate Weapon Orientation
 - Miniaturized/Low Power elevation and cant sensors
 - Orientation relevant to target, fed to ballistics computer
- Reduced SWAP—both opto-mechanics and electronics





Squad Common Optic (SCO)



■ **Description:**

- Provide an improved capability to recognize and engage targets from 0 to 600m with the M4/M16, M249, and M240L
- Variable magnification optic that combines the reflexive fire capability of the M68 Close Combat Optic (CCO) and offers greater resolution than the M150 Rifle Combat Optic (RCO) for increased recognition ranges

■ **Requirement:**

- Draft Capability Development Document (CDD) in process
- PM is working with User to further inform the development of the requirement (emphasis on technologies associated with Gen II vs. Gen III optical bench)



- Small Arms Fire Control Industry Day, Jun 2013
- Dismounted Non-Network Enabled Experiment, Aug - Sep 2014