# "America's Most Deployed Weapon System"



PM Soldier Weapons Briefing for the 31<sup>st</sup> Annual Firepower Symposium

Arming the Current and Future Soldiers

#### **PEO SOLDIER**

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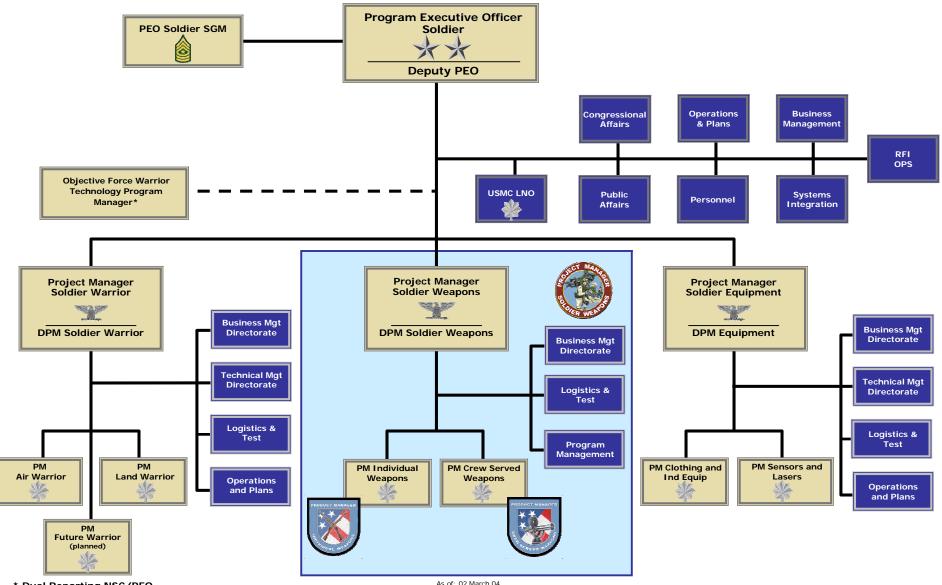
"OUR ARMY AT WAR - RELEVANT AND READY"



\* Dual Reporting NSC/PEO

# **Program Executive Office Soldier**







## Soldier Weapons Today and Tomorrow



ndividua (1963)

rex











MK19 Grenade **Machine Gun** 

Individual Weapons

25mm Ammo **High and Low Velocity** 



40mm Ammo **Thermobaric** 



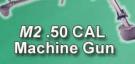




XM25 Air **Burst Weapon** 







M249 Squad Automatic Weapon (SAW) **Crew Served** Weapons

DRMINORESN'

**Common Remotely** Operated Weapon

Station (CROWS)

Lethality Leap Ahead Achievable in 12/24 Months



# XM8 Modular Assault Weapon System

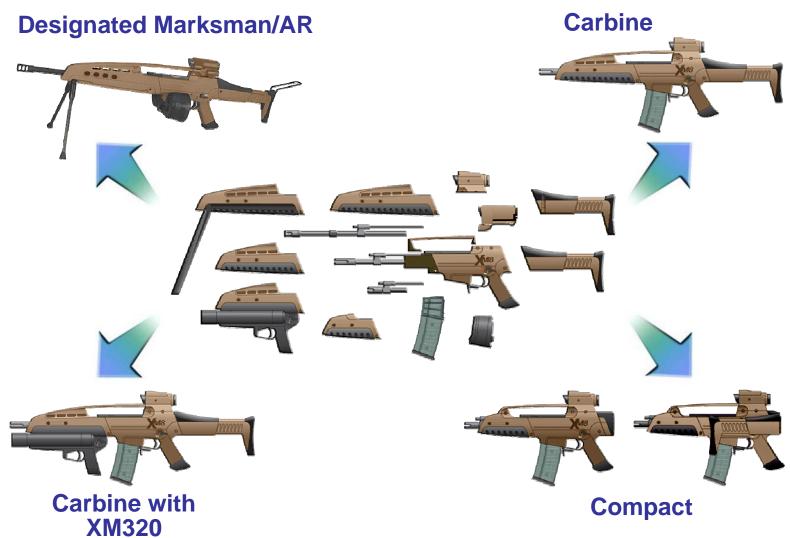






## XM8 Modular FAMILY





# XM8 Capabilities/Benefits





#### Baseline Assault Rifle

#### **Characteristics:**

TIE/AW

- Collapsible Buttstock
- 12.5" Barrel
- Integrated Baseline Sight
- Improved Magazines
- Weight: 6.99 Lbs W/Optic



- **Characteristics:** 
  - Collapsible Buttstock
  - 20" Barrel
  - Integrated 4x Sight
  - Improved Magazines
  - Integrated Bipod
  - High Capacity Magazine For Auto Rifle
  - Weight: 8.0 lbs w/optic

- Integrated Sight/Lasers
- Ambidextrous Controls
- Reconfigurable At Unit
  - One Platform For All Variants
- **Backup Mechanical Sight**
- **Greater Accuracy** 
  - ; 2° Moa
- Greater Reliability
  - 3X Increase
  - 20K Rds W/O Stoppage
- Longer Weapon Life
  - 2-3X Increase
  - -; 20K Rds
- Reduced Cleaning Time
  - 70% Reduction
- Reduced Training Time
  - 2X Reduction
- Lower System Weight
  - 30% Reduction
- Lower System Cost
  - 30% Reduction
- Zero Drain Time



### **Compact**

#### **Characteristics:**

- Fixed Buttpad Or Folding **Or Telescoping Stock**
- 9.5" Barrel
- **Integrated Baseline Sight**
- **Improved Magazines**
- Weight: 6.2 Lbs W/Optic



#### XM320 Grenade Launcher

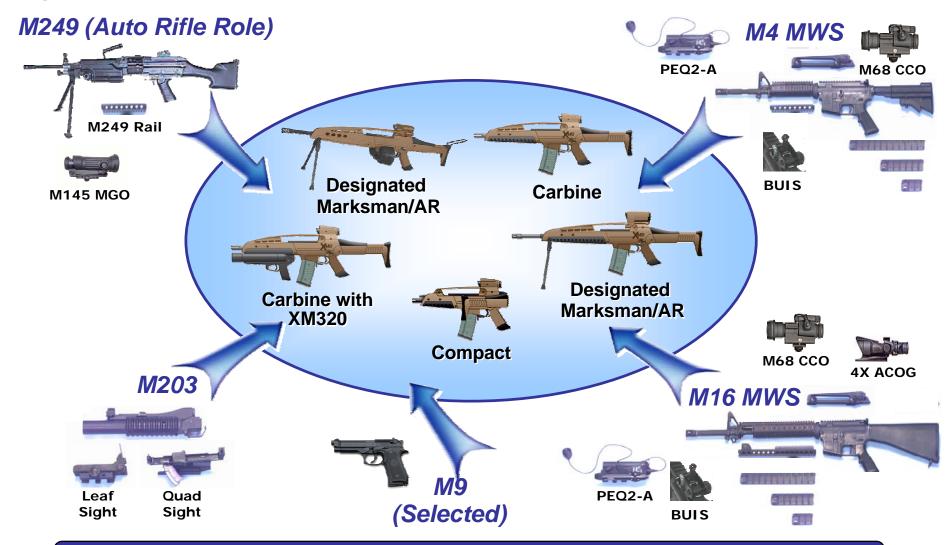
#### **Characteristics:**

- Attaches To XM8 W/O Tools
- **Pivoting Barrel Design Accepts All 40mm Rounds**
- **Integrated Leaf Or Digital Sight**
- **Single Shot**
- Weight: 9.01 Lbs W/Optic



# XM8 FAMILY of Modular Weapons Can Replace...





Multiple Eaches Replaced By Single Integrated FAMILY



# XM8 Firing







## XM25 Air Burst Weapon

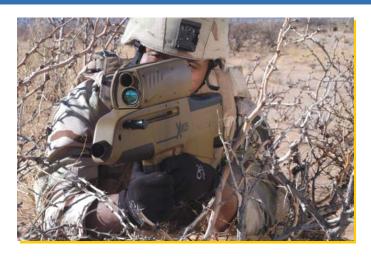






# XM25 Air Burst Weapon System



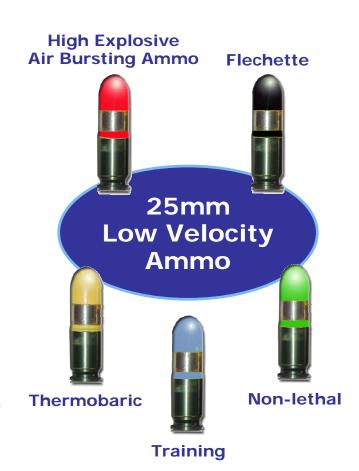


Air Burst Capabilities

Defeats Defilade Targets
Attacks Point Targets Out To 500m
Attacks Area Targets Out To 700m
Semi-automatic

System Weight <12 Lbs (Xm25 Variant)

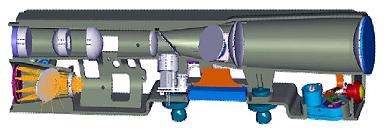
- Weapon
- Target Acquisition/Fire Control (TA/FC)
- Power Supply
- Magazine/Ammo
- Sling





# XM104 Target Acquisition/Fire Control





2.62 lbs

Function	Capabilities		
Hybrid DVO (Direct view optics)	Provides 500m day recognition against personnel targets – with wide 15 degree FOC (2x)		
Thermal	Provides 500m day/night against personnel targets – 12 degree Horizontal FOV with P(rec) 90%		
Laser Rangefinder	Provides target range – High repetition rate (for assisted ranging) and high range accuracy out to 1000m		
Display	Provides red symbology/reticle overlay on the DVO image and provides video display for the thermal image		
Fuze Setter	Programs ammo for airburst (AB) with PD (Point Detonate) backup		
CPU	Provides the "brains" for the fire control system: controls operation, reads all the sensors, calculates the ballistic solution, commands the display symbology, controls power management and LW interface, performs BIT, and etc.		
Compass	Provides heading for Situational Awareness, also provides cant/tilt angles for inputs to the ballistic calculation		
Land Warrior Interface	Capabilities to provide video and symbology to Land Warrior Helmet Mounted Display and two way data and control communications		





## **Advanced Crew Served Weapon**





Kit Change at Unit Level (5 Parts)



**Supports FCS Defensive Armaments 25mm Munitions** 

- Air-bursting Munitions Defeat
   Defilade Targets
- Armor Piercing Munitions Defeat
   Light Armor

Day/Night/All Weather Capable Fire Control

Supports FCS Field Evaluation XM312 Is A Direct Replacement For 87 Year Old M2

Could Support Stryker BCT Fieldings
Accelerated Program Possible W/Funding

- Delivers Start In 12 Mo 50 Wpns In 18 Mo
- Full-rate Production Line In 24 Mo

One Weapon Replaces Two Weapons – M2 & MK19
Dual Feed Capability For Vehicular Variants
Light Weight

- Can Be Dismounted From Platform
- 2-man Portable (50.3 Lbs/43.7 Lbs) Vice 128 Lb M2
   Or 144 Lb MK19

System Dispersion 1.5 Mil
No Headspace Or Timing Adjustments
Maximum Commonality Between XM307 And XM312
Minimized Future Logistic Impact
Capable Of Remote Operations



Shoots/Handles/Maintains Like A Light Machine Gun



# **Advanced Crew Served Weapon Firings**







# Advanced Crew Served Weapon Firings (25mm Airburst Over Target)







# XM101 Common Remotely Operated Weapon Station (CROWS)



Provides Soldier With Capability To Acquire And Engage A Target While Protected By An Armored Vehicle Supported Weapons

- MK19, M2, M249, M240b
- Potential Growth To M230If, M260And XM307
- Weapons Are Quickly
   Interchangeable By The User
- Sensor Suite Permits Target
   Engagement Under Day And Night
   Conditions
- Two Axis Stabilized Mount, Laser Rangefinder And Fire Control Software Allow On The Move Target Acquisition And First Burst Target Engagement
- Can Track Target Independently Of Gun Motion





# **XM101 Operations**







## **XUV Demonstration**

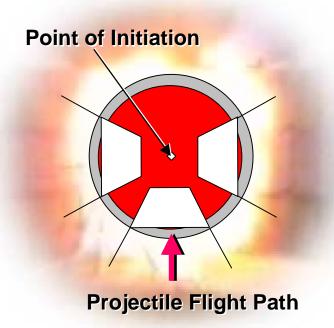






## **Thermobaric Munitions**





Technology Of Thermobarics Demonstrated
Munitions Have Agility To Defeat A Range Of
Targets

Pressure And Light Output Used In Combination To Defeat Enemy Vulnerabilities

#### Xm1060

40mm Low Velocity Rounds Developed In 120 Days

Operational Use Similar To M433 HEDP Deployed To Afghanistan



Legend

Red-40MM Thermobaric Grenade

Ph/PK = 1

**White-40MM HEDP Grenade** 

Ph/Pk >0.5<1.0

25mm High Velocity

25mm High Velocity Air Burst Rounds Developed In 90 Days

Demonstrated During Sep 03 Infantry Conference



**Thermobarics Provide Surgical Effectiveness** 



# Thermobaric Munitions Firings (40mm Static)







# Thermobaric Munitions Firings (40mm Dynamic)







# Thermobaric Munitions Firing (25mm High Velocity Air Burst)





54m Weapon to Point of Burst



# **Urgent Fielding**





M107
Long Range Sniper Rifle



XM1060 Thermobaric Cartridge



XM26 Light Weight Shotgun System



M203
Day/Night Sight (DNS)



## Rapid Fielding Initiative **Background**





#### Shortages:

- Unit funds are insufficient to buy available equipment
- Fielding plans do not meet their needs
- Soldiers are subsidizing the Army's underfunding of Organizational Clothing and Individual Equipment







## **RFI** – First Generation



## **FY03**

















(All "partial" Issues)

Individually funded, individually procured

Unique lists tailored to each BCT's needs

Must standardize their RFI equipment based on current generation RFI list



## **RFI Mission**



Procure and issue individual equipment, weapons enhancements, and non-MTOE items to Soldiers and units at home stations, deploying or deployed in support of Operation Iraqi Freedom 2 and Operation Enduring Freedom 5 from Nov '03 thru Sep '04; prepare to conduct extended and accelerated equipment fielding operations from FY05 thru FY07.

INTENT: Enhance the Soldier's survivability, lethality and mobility with mission essential equipment procured and distributed through an organized program vice ad-hoc purchasing by units and Soldiers.



# FY04 RFI Equipment List Items for *All* Soldiers



### Force Protection/Mobility

Advanced Combat Helmet (ACH) and Accessories (1/Soldier)

## Lethality

M4/M16 Magazines (14,700/BCT-eSB-EAB Set)

#### Soldier Mission Essential Equipment

Black Fleece Bibs (1/Soldier)

**USSOCOM Silk Weight Underwear (2 SE/Soldier)** 

**Hydration System (1/Soldier)** 

Goggles (1/Soldier)

Glove System (1 SE/Soldier)

Cold Weather Cap (1/Soldier)

Infantry Combat Boot Type II (AF Desert) (1 PR/Soldier)

Improved Hot Weather Desert Boot (1 PR/Soldier)

COTS Socks (4 PR/Soldier)

Moisture Wicking T-Shirts (4/Soldier)

Combat Belt (1/Soldier)

### Individual Weapons Optics

M68 Close Combat Optic\* (1418/BCT-eSB-EAB Set)

<sup>\*</sup>Not an individual issue item



# FY04 RFI Equipment List Additional Items for BCTs



### Force Protection/Mobility

MICH Comms Systems & Access. (75<sup>s</sup> & 150<sup>D</sup>/BCT)

ICOM Repair Parts Kit (only as needed)

Knee and Elbow Pads (1/Soldier)

Grappling Hook (27/BCT)

Door Ram (27/BCT)

Battle Axe (27/BCT)

Fiber Optic Viewer (27/BCT)

Quickie Saw and Replacement Blades (27/BCT)

**Modular Entry Tools (27/BCT)** 

Double Key - Cuff (8500/BCT)

Assault Ladder (27/BCT)

## Soldier Mission Essential Equipment

MOLLE Accessories\* (1/Soldier & Special by Eq. Type)
Individual Combat Shelter (1/Soldier)
Multipurpose Tool (1/Soldier)

### Lethality

Weapon Light (768/BCT)
M249 Rail (369/BCT)
M240B Rail (83/BCT)
M122/A1 Tripods (87/BCT)
M24 Small Binoculars (882/BCT)
VIPER (VECTOR 21)/Mark VII (58/BCT)

Lightweight Shotgun System (162/BCT)

**MBITR** (149/BCT)

M249 Ammo Soft Pack (369/BCT)

M240B Combat Ammo Pack (83/BCT)

## Individual Weapons Optics

TA31F - 4X ACOG (170/BCT)
M145 Machinegun Optic (342/BCT)

List approved by Army G3/G8

IBA, MOLLE, TWS funded separately

<sup>\*</sup>Includes Hydration System



## **Status Report**



#### (completed thru May 04)



Concurrent CONUS and OCONUS operations
Over 74,000 Soldiers have received RFI equipment since program inception

Operation will grow to 20,000(+) Soldiers per month in FY05

Objective: equip entire Operational Army by end of FY07

Plus 22,000 Support Soldiers in Iraq



# **Long-Term RFI Requirements**



# Mission: Procure And Distribute RFI Equipment To Entire Operational Army By End Of FY07

		<u>Soldiers</u>	<u>BCTs</u>	<u>EABs</u>
AC		308,000	48	<b>37</b>
ARNG		339,000	35	60
USAR		141,000	1	39
Dep TDA		22,000	0	6
<b>Tng Base</b>		<u>30,000</u>	<u>0</u>	<u>9</u>
To	otals	840,000	84	151

Campaign Plan to accomplish this mission presented in Feb 04

