“America’s Most Deployed Weapon System”

PM Soldier Weapons Briefing for the 31st Annual Firepower Symposium

Arming the Current and Future Soldiers

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“OUR ARMY AT WAR - RELEVANT AND READY”
Program Executive Office Soldier

PEO Soldier SGM

Program Executive Officer Soldier
   --- Deputy PEO

Objective Force Warrior Technology Program Manager*

Project Manager Soldier Warrior
   --- DPM Soldier Warrior

Project Manager Soldier Weapons
   --- DPM Soldier Weapons

Project Manager Soldier Equipment
   --- DPM Equipment

PM Air Warrior
PM Land Warrior
PM Future Warrior (planned)

PM Individual Weapons
PM Crew Served Weapons

Business Mgt Directorate
Technical Mgt Directorate
Logistics & Test
Operations and Plans

Business Mgt Directorate
Logistics & Test
Program Management

Business Mgt Directorate
Logistics & Test
Operations and Plans

USMC LNO
Public Affairs
Personnel
Systems Integration

RFI OPS

Congressional Affairs
Operations & Plans
Business Management

PM Individual Weapons
PM Crew Served Weapons

PM Clothing and Ind Equip
PM Sensors and Lasers

* Dual Reporting NSC/PEO

As of: 02 March 04
Soldier Weapons
Today and Tomorrow

Individual Weapons
- M16A4 Rifle
- M16/M203
- M4 Carbine
- XM8 Carbine
- XM320 40mm Grenade Launcher
- XM29 Integrated Airburst Weapon System
- XM25 Air Burst Weapon
- M107 Long Range Sniper Rifle
- XM307/XM312 Advanced Crew Served Weapon
- Common Remotely Operated Weapon Station (CROWS)

25mm Ammo
- High and Low Velocity
- Airburst
- Thermobaric
- Armor piercing

40mm Ammo
- Thermobaric

Crew Served Weapons
- M2 .50 CAL Machine Gun
- MK19 Grenade Machine Gun
- M249 Squad Automatic Weapon (SAW)

Lethality Leap Ahead Achievable in 12/24 Months
XM8
Modular Assault Weapon System
XM8 Modular FAMILY

Designated Marksman/AR

Carbine with XM320

Carbine

Compact
**Baseline Assault Rifle**
Characteristics:
- Collapsible Buttstock
- 12.5” Barrel
- Integrated Baseline Sight
- Improved Magazines
- Weight: 6.99 Lbs W/Optic

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

**XM8 Capabilities/Benefits**
- 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...

M249 (Auto Rifle Role)
- M249 Rail
- M145 MGO

Designated Marksman/AR Carbine
- Carbine
- Carbine with XM320

Designated Marksman/AR Compact
- Compact

M4 MWS
- PEQ2-A
- M68 CCO
- BUIS

M16 MWS
- M68 CCO
- 4X ACOG
- BUIS

M9 (Selected)
- M9
- PEQ2-A
- BUIS

Multiple Eaches Replaced By Single Integrated FAMILY
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

25mm Low Velocity Ammo

- High Explosive Air Bursting Ammo
- Flechette
- Thermobaric
- Non-lethal
- Training
### XM104 Target Acquisition/Fire Control

**2.62 lbs**

<table>
<thead>
<tr>
<th>Function</th>
<th>Capabilities</th>
</tr>
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<tbody>
<tr>
<td>Hybrid DVO (Direct view optics)</td>
<td>Provides 500m day recognition against personnel targets – with wide 15 degree FOC (2x)</td>
</tr>
<tr>
<td>Thermal</td>
<td>Provides 500m day/night against personnel targets – 12 degree Horizontal FOV with P(rec) 90%</td>
</tr>
<tr>
<td>Laser Rangefinder</td>
<td>Provides target range – High repetition rate (for assisted ranging) and high range accuracy out to 1000m</td>
</tr>
<tr>
<td>Display</td>
<td>Provides red symbology/reticle overlay on the DVO image and provides video display for the thermal image</td>
</tr>
<tr>
<td>Fuze Setter</td>
<td>Programs ammo for airburst (AB) with PD (Point Detonate) backup</td>
</tr>
<tr>
<td>CPU</td>
<td>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.</td>
</tr>
<tr>
<td>Compass</td>
<td>Provides heading for Situational Awareness, also provides cant/tilt angles for inputs to the ballistic calculation</td>
</tr>
<tr>
<td>Land Warrior Interface</td>
<td>Capabilities to provide video and symbology to Land Warrior Helmet Mounted Display and two way data and control communications</td>
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</table>
Advanced Crew Served Weapon

XM 307 312
**Advanced Crew Served Weapon**

**XM307**

- 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

**XM312**

- 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

**Kit Change at Unit Level (5 Parts)**

- 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 M230lf, M260 And 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

25mm High Velocity
25mm High Velocity Air Burst Rounds Developed In 90 Days
Demonstrated During Sep 03 Infantry Conference

Legend
Red – 40MM Thermobaric Grenade Ph/PK = 1
White – 40MM HEDP Grenade Ph/Pk >0.5<1.0

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

XM26
Light Weight Shotgun System

XM1060
Thermobaric Cartridge

M203
Day/Night Sight (DNS)
Rapid Fielding Initiative
Background

Performance of Soldier Weapons and Equipment in Afghanistan

Bottom Line

Background: The Support-Development Team visited units in Afghanistan and after redeployment

Conclusion: Despite shortages and shortcomings, Weapons and Equipment are good.
- Shortcomings: We are working quick fixes
- Shortages: Unit funds are insufficient to buy available equipment
- Fielding plans do not meet their needs
- Soldiers are subsidizing the Army’s under-funding of Organizational Clothing and Individual Equipment

What Soldiers Want/Buy

What Units Want/Buy

Army Could Issue These Items

Army Could Issue To Units or Accelerate Fielding
RFI – First Generation

Individually funded, individually procured

Unique lists tailored to each BCT’s needs

Must standardize their RFI equipment based on current generation RFI list

(All “partial” Issues)
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* (1,418/BCT-eSB-EAB Set)

*Not an individual issue item

List approved by Army G3/G8

IBA, MOLLE, TWS funded separately
FY04 RFI Equipment List
Additional Items for BCTs

**Force Protection/Mobility**
- MICH Comms Systems & Access. (75s & 150d/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)

**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)

**Soldier Mission Essential Equipment**
- MOLLE Accessories* (1/Soldier & Special by Eq. Type)
- Individual Combat Shelter (1/Soldier)
- Multipurpose Tool (1/Soldier)

**Individual Weapons Optics**
- TA31F - 4X ACOG (170/BCT)
- M145 Machinegun Optic (342/BCT)

*Includes Hydration System

**List approved by Army G3/G8**

**IBA, MOLLE, TWS funded separately**
Status Report

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

<table>
<thead>
<tr>
<th></th>
<th>Soldiers</th>
<th>BCTs</th>
<th>EABs</th>
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<tbody>
<tr>
<td>AC</td>
<td>308,000</td>
<td>48</td>
<td>37</td>
</tr>
<tr>
<td>ARNG</td>
<td>339,000</td>
<td>35</td>
<td>60</td>
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<tr>
<td>USAR</td>
<td>141,000</td>
<td>1</td>
<td>39</td>
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<tr>
<td>Dep TDA</td>
<td>22,000</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Tng Base</td>
<td>30,000</td>
<td>0</td>
<td>9</td>
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<tr>
<td>Totals</td>
<td>840,000</td>
<td>84</td>
<td>151</td>
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Campaign Plan to accomplish this mission presented in Feb 04