FY11 Munitions Delivered

- Mortar
  - 60mm – 432,875
  - 81mm – 494,665
  - 120mm – 250,606

- Artillery
  - Artillery Projectiles – 354,496
  - Artillery Fuzes – 62,500
  - Energetics
    - 60/81/120mm Mortar Ignition Cartridges – 1,120,655
    - 60/81/120mm Mortar Propelling Charges – 4,899,706
    - 155mm MACS M232A1 – 786,165
    - XM982 Excalibur – 581
    - XM395 APMI – 970

Approx $682 Million Ammo Delivered
FY12 Munitions Planned Deliveries

- **Artillery Rounds**
  - 75mm – 114,075
  - 105mm – 36,006
  - 155mm – 250,670
  - Fuzes – 223,180

- **Mortar Rounds**
  - 60mm – 598,675
  - 81mm – 261,198
  - 120mm – 280,998

- **Precision**
  - XM982 Excalibur – 337 1a-1 rds and 1738 1a-2 rds
  - XM395 APMI - 4510

- **Energetics**
  - Ignition Cartridges –
    - (60, 81, 120mm Mortar)
    - 858,928
  - Mortar Propelling Charges -
    - (60, 81, 120mm Mortar)
    - 6,352,358
  - MACS M232A1 - 757,030

Approx $650 Million Ammo to be Delivered
XM395 Accelerated Precision Mortar Initiative (APMI)

**Requirement:**
- **Required Capability:**
  - GPS Guidance
  - Accuracy: 10m CEP (T); 5m (O)
  - Maximum Range: 6.5km or greater
  - Reliability: .90 by UMR
  - Compatibility: All U.S. Army 120mm Mortar Systems

**Description:**
APMI is a GPS-guided 120mm mortar munition that will provide maneuver battalion commanders with an organic precision indirect fire capability to neutralize enemy forces in complex terrain difficult to engage with low-angle fire.

**Schedule:**

<table>
<thead>
<tr>
<th>Task</th>
<th>FY 2011</th>
<th>FY 2012</th>
<th>FY 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Article</td>
<td>◢</td>
<td></td>
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<tr>
<td>Urgent Materiel Release</td>
<td>◢</td>
<td>◢</td>
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<tr>
<td>Initial Oper. Capability</td>
<td>◢</td>
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<tr>
<td>Phase II Development</td>
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<tr>
<td>Limited Production I</td>
<td>◢ &lt;br&gt; Qty 1364</td>
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<td>Limited Production II</td>
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<td>◢ &lt;br&gt; Qty 4116</td>
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<tr>
<td>Stryker DVH Oper Test</td>
<td>◢</td>
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<tr>
<td>Stryker Fielding</td>
<td>◢</td>
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</tr>
</tbody>
</table>

**Current Status/Schedule:**
- Urgent Material Release: 3-4 Mar 2011
- Initial Operational Capability: 14 Apr 2011
- 1,449 rounds delivered to theater
- 8 BCTs and 1 Ranger Bn trained/fielded
- 53 rounds fired in combat
- Completed CONUS training /LFX [4/82 (Nov 11); 1/82 (Dec 11/Jan 12)]
- Operational Assessment completed, TRADOC delivery to HQDA Feb 12
- Completed Stryker DVH APMI Operational Test (OT)/Integration: 2 Feb 2012
- Fielding to Stryker BCT Spring 12
XM1156 Precision Guidance Kit (PGK)

Requirement:

Key Performance Parameters

Net Ready:
- Incorporated into Digital Fire Support Systems: AFATDS; M109A6 (Paladin); M777A2 (LW155); EPIAFS; GPS

Reliability by IOC:
- 0.92 (T); 0.97 (O)

Accuracy:
- ≤50m CEP (T); ≤30m CEP (O)

Attributes

Munition / Platform Types:
- 155mm High Explosive Projectiles: M795, M549/A1
- M109A6 (Paladin), M777A2 (LW155)

Baseline Program Schedule:

<table>
<thead>
<tr>
<th>Task</th>
<th>FY 2011</th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY2014</th>
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</thead>
<tbody>
<tr>
<td>EMD</td>
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<td>Design Verification Phase</td>
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<tr>
<td>Govt Qualification Part 1</td>
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<tr>
<td>Govt Qualification Part 2</td>
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<td>Milestone C (Feb 2013)</td>
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<tr>
<td>Production/Deployment</td>
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<tr>
<td>- Production FY13 (FFP)</td>
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<tr>
<td>Full Materiel Release (Mar 2014)</td>
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<tr>
<td>Initial Operational Cap. (Apr 2014)</td>
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<tr>
<td>- Production FY14 (FFP)</td>
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</table>

Issues/ Status:

- PGK Exceeding Accuracy KPP Threshold of 50 meter CEP
  - Recent testing indicates ability to exceed Objective at top zone / max ranges

- PGK program re-baselined in response to reliability issues in Aug 2010

- Program now on track to meet 92% Reliability KPP by IOC (Based on Aug-Sep 2011 Reliability Test Results)

- Directed Requirement for UMR approved and Above Threshold Reprogramming (ATR) for resourcing in process
  - Potential to field in Spring 2013 to OEF

- Key Milestones
  - UMR (given resourcing) 2QFY13
  - MS C: 2QFY13
## FY12/13 Planned Acquisitions

<table>
<thead>
<tr>
<th>Product</th>
<th>Projected Award Date</th>
<th>Dollar Amount</th>
<th>Contract Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>M935 HE Fuzes</td>
<td>3QFY12</td>
<td>$99M</td>
<td>NTIB, IDIQ</td>
</tr>
<tr>
<td>120mm M31 Fins</td>
<td>3QFY12</td>
<td>$62M</td>
<td>F&amp;O, IDIQ</td>
</tr>
<tr>
<td>MACS LAP</td>
<td>4QFY12</td>
<td>$37.5M</td>
<td>NTIB, IDIQ</td>
</tr>
<tr>
<td>PA179 Metal Container, Excalibur 1b</td>
<td>4QFY12</td>
<td>$11.4M</td>
<td>SBSA, IDIQ</td>
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<tr>
<td>60mm PA191, 81mm PA157, 120mm PA154 Mortar Metal Containers</td>
<td>1QFY13</td>
<td>$19M</td>
<td>F&amp;O, IDIQ</td>
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<tr>
<td>PGU-43B, PGU-44B, PGU-45B LAP</td>
<td>1QFY13</td>
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<td>120mm Illum/IR Mortar Ctg Bodies M930/ M983</td>
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<td>120mm HE/FRP/Smoke Ctg Shell Bodies</td>
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<tr>
<td>M734a1 Multi-Option Fuzes and M783 Point Detonating/ Delay Mortar Fuzes</td>
<td>3QFY13</td>
<td>$69M</td>
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<tr>
<td>FMU 153/B Fuze for PGU 44/B</td>
<td>3QFY13</td>
<td>$20.5M</td>
<td>NTIB, IDIQ</td>
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</table>
Conventional Funding – Over Time

Program Dollars ($M)

<table>
<thead>
<tr>
<th></th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
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</thead>
<tbody>
<tr>
<td>Fuzes &amp; Propellants</td>
<td>$189</td>
<td>$112</td>
<td>$168</td>
<td>$234</td>
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<td>Artillery</td>
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<td>$125</td>
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</tbody>
</table>

FY 06 -10 AVG = $774M

FY 11 -16 AVG = $466M

39.8% Decrease
## Industrial Base Challenges

### Challenges

- **Declining Budget vs. Industrial Base Sustainment**
  - Fuze
  - Propellant/Energetics
  - Metal Parts Forging

- **Counterfeit Parts**
  - GPS receiver Module
  - Samsung SDRAM

- **International Competition**
  - Fewer World Market Opportunities
  - Increasing CONUS Involvement by Foreign Based Companies

### Activities

- Continue to Support PEO IB “Watch List”
- Identified Industrial Base Concern to G-8
- Modification of IDIQ to ‘single award’ where appropriate
- Assessing Future Acquisition to Minimize impact
- Tightening Contract/Language to Verify Component OEM Authenticity
- Increased FMS Focus
- Leveraging Stockpile Surplus Where Possible
- Supporting CRADA Approach to Address DCS Opportunities