Precision Weapons for the Agile Warfighter

Mr. Jim Jordan
US Army Program Executive Office for Missiles and Space, Redstone Arsenal, Alabama

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PEO Missiles and Space

• Mission
  – To provide an unprecedented level of service and support for PEO Missiles and Space Weapon Systems.

• Vision
  – A Soldier-supported team that provides uncompromising service in development, procurement, and sustainment of superior weapon systems.
Close ties with Infantry, Aviation, Artillery and Air Defense Centers. AMCOM, RDECOM, SMDC, MDA, PEO Aviation, and the Joint community.
CCWS: Close-Combat Weapon Systems

Close-Combat Missiles and Target Acquisition for the Front-Line Warfighter

- Develop, Field and Sustain Current and Future Force Close Combat Missile Systems and Associated Target Acquisition Systems
- Enhance Effectiveness of Current Systems With Technology Insertion
- Maintain Reliability of Stockpiled Systems
JAMS: Joint Attack Munition Systems

Aviation Rockets and Missiles for the Joint Force

- Provide Current and Future Force Joint Aviation Assets With the Rocket and Missile Systems Needed to Dominate the Land Battle
- Upgrade Current Missile Systems
NLOS: Non-Line of Sight Systems

**Unmanned Fire Support**

- ✔ Highly Deployable, Platform-Independent Container Launch Unit (CLU)
- ✔ Self-Contained Technical Fire Control
- ✔ Remote, Unmanned Operations
- ✔ Precision Fire Support to Brigade Combat Teams (BCT)
Provide a Suite of Launchers, Rockets and Missiles That Provide the Precision Fire Capability Needed for Current and Future Forces

- Increased Deployability
- Increased Precision
- Integration of Existing Technologies to Provide New Capabilities

**PFRMS: Precision Fires Rocket and Missile Systems**

**Precision Fires for Current and Future Forces**
Provide Fully Integrated Low Altitude Air Defense Against Cruise Missiles, Unmanned Aerial Vehicles and other Low Flying Fixed and Rotary Wing Targets

Developing Common BMC4I Capability for the AMD Task Force and the Composite Battalion

Evolve Into a Future AMD Force Capability Capable of Defeating Current and Future Threats Including Rockets, Mortars and Artillery

Evolve Sentinel Through P3I to Support FCS/SLAMRAAM by Overcoming Emerging / Evolving Threats
Lower Tier

Effective Against Nuclear, Biological and Chemical Warheads

- Expanded Battlespace
- Hit-To-Kill Technology
- Improved Deployability and Mobility
- Moves With Maneuver Forces – 360° Degree Protection
- Early Warning, Alerting and Cueing Via Direct Downlink of Satellite Threat Data

Continuous System Evolution

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Integrated Air & Missile Defense

Fully Integrated Defense for the Warfighter

- IBCS
  - Select Best Shooter
  - Manage Sensor Resources
  - Manage Shooter Resources
  - Manage Network Resources
  - Interface to Future Force Networks
  - Interface to Joint Networks
  - Multi-Sensor Fusion
  - Combat ID
  - Common GUI

- JIM Systems

- Weapons
  - Standard Interface
  - EOR Capable
  - External Tasking

- Sensors
  - Standard Interface
  - Surveillance
  - FCQ Data
  - Kill Assessment
  - External Tasking
  - Multi-Sensor Fusion
  - Measurements for CID/CDI

- Other Future Force Elements (i.e. FCS)

✓ Integrate All AMD Sensors and Shooters Into a Seamless Weapon System-of-Systems
✓ Net-Centric Cruise Missile Defense
✓ Open Architecture That Supports New Technologies and Capabilities
✓ Joint Composite Track Management
Trends

• We have precision guidance.
• Now we need precision effects.
  – Selectable firing modes-variable effects.
  – Scalable lethality (“dial-a-yield”).
  – Defeat any target type.
Benefits – Precision Effects

• Extends concept of precision to both point and area effects.
  – *Precision will mean what, where, when, and how much.*

• Provides warfighter with *agility*. Not just speed but quickness for 4th gen. warfare.
  – Improved op tempo via stowed kills and lower logistics burden.
  – Reduced collateral damage, enhanced flexibility of use.
  – Holistic approach includes training & supply as well as combat operations.
Challenges

• More stringent requirements.
• System, Platform, and Weapon Integration
• Industrial Base (sole-source, surge, “green”)
• Acquisition Model (system, performance)
• Time and Money!
  – How to fund game-changing tech while resetting existing Army?
Defense Budget Prediction

Spending for Investment, by Budget Account and Weapon Type

(Billions of 2007 Dollars of Total Obligational Authority)

(from US Congressional Budget Office)

Declining RDT&E,
Stagnant Missile Procurement

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How will fuze tech help?

• Firing systems for selectable effects.
• Electronic fuzes that are smaller, lighter, cheaper, and survivable.
• MEMS, especially for very low cost applications.
• Proximity sensors, cheap, precise
• Improved safety and reliability.
Summary

• PEO Missiles and Space: precision weapon systems for the agile warfighter.

• Fuze technology is **key**, but people with world-class talent, iron will, and game-changing ideas have to come first.

“People, ideas, and hardware – in that order!

- COL John D. Boyd, USAF