2009 Fire Power Forum

OSD Perspective

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Land Warfare and Munitions
Discussion Topics

- OSD / AT&L Organization
- Department Priorities
- Budget Trends
- Acquisition Reform
- Munitions Interest Areas
  - Conventional Weapons Joint Assessment Team
  - Insensitive Munitions
  - Fuze Technology
  - Joint Munitions Program
  - DoD Ordnance Technology Consortium (DOTC)
  - TATB
  - Cluster Munitions
  - Conventional Munitions Demil
Department Priorities
Secretary of Defense Priorities

1. Reaffirm commitment to take care of the all-volunteer force – “America’s greatest strategic asset”

2. Rebalance the Department’s programs to fight today’s wars and the scenarios we are most likely to face in the future, while providing a hedge against other risks

3. Fundamental overhaul of procurement, acquisition, and contracting processes; requires:
   – Stopping programs that exceed budget or buy more capability than the nation needs
   – Ensuring requirements are reasonable and technology is adequately mature
   – Ensuring realistic program costs, budget stability, adequate staffing, and disciplined oversight
# Planning, Programming, Budgeting, and Execution

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<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
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<tr>
<td><strong>FY 11-15</strong></td>
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<td>“Review and Refinement”</td>
<td>“Formalizing the Agenda”</td>
<td>“Execution of Guidance”</td>
<td>“Ensuring the Legacy”</td>
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<td>QDR to Congress</td>
<td>Program Budget Review</td>
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<td>Modify Budget Submission (previous administration)</td>
<td>Budget Submission Year 1</td>
<td>Budget Submission Year 2</td>
<td>Budget Submission Year 3</td>
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<td>We are here!</td>
<td>Budget Execution Year 1</td>
<td>Budget Execution Year 2</td>
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**4 Administration Years with 2-year PPBE Cycle**
2006 QDR - Operationalizing the Strategy

Diagram showing the operationalization of strategies for irregular, catastrophic, traditional, and disruptive challenges.
2010 QDR

- QDR will assess threats and challenges the nation faces and re-balance DoD’s strategies, capabilities, and forces.
  - Principal means by which NDS is translated into new policies and initiatives.
  - Provides strategic framework for force development and management; provides guidance across the FYDP.

- Issues Teams
  - Irregular Warfare – further institutionalizing capabilities and capacities to include building partnership capacity.
  - High-end Asymmetric Threats – addressing threats posed from the use of advanced technology and WMD.
  - Global Posture
  - Civil Support (at home and abroad) – strengthening support to civilian-led operations and activities.
  - Cost Drivers
Budget Trends
Past and Projected Resources for Defense

(Billions of 2009 dollars)

Past and Projected Resources for Defense Investment

(Billions of 2009 dollars)

## FY 2010 President’s Budget
### Munitions Appropriations

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<th>2008</th>
<th>2009</th>
<th>2010</th>
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<td>Ammo (A)</td>
<td>2,703</td>
<td>2,557</td>
<td>2,433</td>
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<tr>
<td>Ammo (N/MC)</td>
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<td>Missiles (A)</td>
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<td>Missiles (AF)</td>
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<td>Weapons (N)</td>
<td>3,375</td>
<td>3,383</td>
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<td>($ M)</td>
<td>16,160</td>
<td>16,834</td>
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Acquisition Reform
Weapon Systems Acquisition Reform Act of 2009

• **Title I – Acquisition Organization**
  – **Section 101** Creates Senate approved position replacing existing D, PA&E with Director, Cost Assessment and Program Evaluation (CAPE)
  – **Section 102** Requires SECDEF to appoint a Director, Developmental Test & Evaluation and a Director, Systems Engineering to report to USD(AT&L)
  – **Section 103** Requires a SECDEF designated official to conduct and oversee performance assessments and root cause analysis for MDAPs
  – **Section 104** Codifies a DoD practice of conducting assessments of technological maturity of critical technologies of MDAPs
  – **Section 105** Directs the JROC to seek and consider input from COCOMs
Weapon Systems Acquisition Reform Act of 2009

• **Title II – Acquisition Policy**
  
  – **Section 201** Requires SECDEF to ensure mechanisms developed and implemented to consider trade-offs among cost, schedule, and performance objectives in establishing requirements for acquisition programs
  
  – **Section 202** Requires SECDEF ensure acquisition strategies include measures to preserve competition, throughout the life of a program
  
  – **Section 203** Requires SECDEF modify acquisition guidance to require competitive prototyping prior to a MS B decision
  
  – **Section 204** Requires the PM to notify the MDA if prior to a MS B decision if cost or schedule grow > 25%
  
  – **Section 205** Programs receiving MS B approval on a waiver basis (statutory requirements) must be reviewed by MDA at least annually and flagged in budget documentation for Congress
  
  – **Section 206** Requires a root cause analysis following a critical breach, includes presumption of termination
  
  – **Section 207** Requires SECDEF to revise regulations dealing with contractors’ organizational conflicts of interest
Munitions Interest Areas
Conventional Weapons JAT

**Purpose**
- Assess S&T funding in the area of conventional weapons.
- Implied is need to create weapon roadmaps
- Influence FY2011 Budget Review

**Process**
- Identify priority capability areas
- Identify current S&T funding
- Assess capability areas and associated S&T funding

**Deliverables**
- Weapon Roadmap for each Capability Area
  - Breakout of enabling technologies (being pursued and/or required) for each capability area being addressed
- Identification of “suppressive” systems and their requirements
  - Highlight minimum Industrial Base requirements
  - Highlight technologies that will assist IB
- Conclusions & Recommendations
Insensitive Munitions (IM) Update

• IM Strategic Plans continue to be the primary vehicle for oversight and insight of Service IM implementation.

• Third submission of strategic plans has highlighted significant improvements in some systems, while identifying other areas that need focus.  
  – (+) Army M107/M795 155 Artillery  
  – (+) Navy SM-2/3/6  
  – (+) Air Force Focused Lethality Munition  
  – (+) USMC Portfolio wide improvements  
  – (-) Linkage between PM programs and S&T Investments  
  – (-) Metrics for gauging IM program success

• IM Strategic Plans remain the primary tool for guiding IM technology investments
Joint IM Technology Program

- FY09 Total $25M, $15M (6.2), $10M (6.3)
- Total FY10-15 Funding is $231M Focused on developing and demonstrating enabling technologies in 5 munition areas:
  - High Performance Rocket Propulsion
  - Minimum Smoke Rocket Propulsion
  - Blast/Fragmentation Warheads
  - Anti-Armor Warheads
  - Large Caliber Gun Propulsion
- First technology transfer should occur in FY09
  - IMX-101 TO US Army/USMC M795 155mm artillery round
  - Fragment Impact Warhead Technology for AIM-9x Warhead
- **DOTC is the mechanism for engaging industry**
Fuzing Science & Technology Efforts

• Total FY2010 – FY2015 funding is $79.8M

• 4 Fuze Area Technology Groups formed:
  – Hard Target Survivable Fuzing
  – Tailorable Effects Weapon Fuzing
  – High Reliability Fuzing
  – Enabling Technologies and Common Architecture

• Participants
  – DoD communities: S&T / Requirements / Acquisition
  – Dept. of Energy
  – Industry via DOTC
Joint DoD/DOE Munitions Program (JMP)

• **Goal:** transition technologies and tools developed by the JMP-DOE National Labs to NWEC members in accordance with federal laws & Lab rules

• **FY 09** $23.7M, **FY10-FY15** $143.6M

• Approx. 40 projects in 9 Technology Coordinating Groups arranged in 5 focus areas:
  – Modeling & Simulation (TCG I & II)
  – Energetic Materials (TCG II & III)
  – Initiation, Fuzing & Sensors (TCG X & XIII)
  – Warhead Technology (TCG IV & XI)
  – Munitions Lifecycle (TCG IX & XIV)
DoD Ordnance Technology Consortium

DoD Laboratories

National Warheads & Energetics Consortium

Rapid & Agile Acquisitions

- OUSD (AT&L) LW&M
- Department of The Army
- Department of the Navy
- Department of the Air Force
- Department of Energy
- Special Operations Command
- Other Agencies and Departments

- Defense Contractors
- Traditional & Non-Traditional
- Academic Institutions
- Not-for-Profits Organizations

DoD and NWEC… Partnering to Leverage Capabilities and Investment
TATB

BACKGROUND

• Triaminotrinobenzene (TATB) is one of the least sensitive explosive materials known
  – TATB is a critical ingredient in the booster explosives PBXN-7 and PBXW-14 for DoD applications
  – TATB is used in PBX 9502 and LX-17 for DOE applications
• 2005 last qualified OCONUS source ceased production and closed in 2006
• 2006 MANTECH unsuccessful in developing a production source
• 2007 TATB DoD/DOE Working Group formed

ROAD AHEAD

• Reestablish Benziger TATB Route
• Leverage DOE TATB Strategic Stockpile
• Funding for reclaimed TATB

ISSUES

• DoD dependent on DOE stockpile for at least the next two to three years
• Earliest relief may come from reclamation effort
• TATB will ONLY be available for DoD components and FMS
Cluster Munitions

• DoD policy issued June 2008; after 2018 all cluster munitions must have UXO rate of 1% or less.
  – Convention on Cluster Munitions signed by 94 nations in December 2008; bans nearly all cluster munitions; U.S. is not a signatory
  – U.S. is negotiating within the Convention on Conventional Weapons to regulate (not ban) use of cluster munitions

• Impacts of new policy and treaty:
  – Increase in demil liability
  – Potential new R&D and production of replacement munitions
  – Possible changes in how U.S. operates with coalition partners who signed Convention on Cluster Munitions

• Joint Staff led PDM Assessment highlighted:
  – Need for more analysis (TRADOC assessment Sept 09, POM12 MRP, etc…)
  – Support for GMLRS Alternative Warhead program
  – Support for new DoD Fuze S&T program

STAY TUNED
Design for Demilitarization
Policy Memo Signed by USD(AT&L) August 2008

- If not considered early in the design, increases weapons’ life cycle costs

- During system design, weapons designers can optimize demil methods and resource reclamation and reuse
  - Facilitate disassembly and access to energetic materials
  - Use energetic materials and components having reclamation or reuse potential
  - Efficiently accommodate existing demilitarization processes
  - Reduce the use of environmentally sensitive materials
  - And enhance safety for demil operators

- PMs will now include in acquisition documents and in design reviews how they intend to address demil in design and test
Questions?