2011 Munitions Executive Summit

OSD Perspective

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Discussion Topics

- Acquisition Efficiency Initiatives
- Budget Trends
- Munitions Interest Areas
  - Insensitive Munitions
  - Joint Insensitive Munitions Technology Program
  - Joint Fuze Technology Program
  - Joint DoD/DOE Munitions Program
  - Conventional Weapons Roadmap
  - Critical Energetics Materials (new initiative underway)
  - DoD Ordnance Technology Consortium (DOTC)
Acquisition Efficiency Initiatives

• Target Affordability and Control Cost Growth
• Incentivize Productivity & Innovation in Industry
• Promote Real Competition
• Improve Tradecraft in Acquisition of Services
• Reduce Non-Productive Processes and Bureaucracy
Acquisition Efficiency Guidance Roadmaps

Target Affordability and Control Cost Growth
- Mandate affordability as a requirement
- Implement “should cost” based management
- Eliminate redundancy within warfighter portfolios
- Achieve Stable and economical production rates
- Manage program timelines

Promote Real Competition
- Emphasize competitive strategy at each program milestone
- Remove obstacles to competition
  - Allow reasonable time to bid
  - Require non-certified cost and pricing data on single offers
  - Enforce open system architectures and set rules for acquisition of technical data rights
- Increase small business role and opportunities

Incentivize Productivity & Innovation in Industry
- Reward contractors for successful supply chain and indirect expense management
- Increase Use of FPIF contract type
- Capitalize on progress payment structures
- Institute a superior supplier incentive program
- Reinvigorate industry’s independent research and development

Improve Tradecraft in Acquisition of Services
- Assign senior managers for acquisition of services
- Adopt uniform services market segmentation (taxonomy)
- Address causes of poor tradecraft
  - Define requirements and prevent creep
  - Conduct market research
- Increase small business participation

Reduce Non-Productive Processes and Bureaucracy
- Reduce frequency of OSD level reviews
- Work with Congress to eliminate low value added statutory requirements
- Reduce the volume and cost of Congressional Reports
- Reduce non-value added requirements imposed on industry
- Align DCMA and DCAA processes to ensure work is complementary
- Increase use of Forward Pricing Rate Recommendations (FPRRs) to reduce administrative costs
Budget Trends
Planning, Programming, Budgeting, and Execution

4 Administration Years with 2-year PPBE Cycle
Department of Defense Topline
FY 2001 – FY 2015
(Current Dollars in Billions)

FY 2010 – FY 2015 Base Growth
Nominal Growth 3.0%
Real Growth 1.0%

Numbers may not add due to rounding

Note: FY 2011 – FY 2015 reflects levels included in the President’s FY 2011 Budget Request; FY 2009 Non-War Supplemental was appropriated through the American Recovery and Reinvestment Act of 2009
Munitions Interest Areas
Insensitive Munitions (IM)

U.S. Law

USC, Title 10, Chapter 141, Section 2389 December 2001: “§ 2389. Ensuring safety regarding insensitive munitions. The Secretary of Defense shall ensure, to the extent practicable, that insensitive munitions under development or procurement are safe throughout development and fielding when subject to unplanned stimuli.”

Warfighter Benefits:

**Safety** (An increase in survivability for the Warfighter)
Operational efficiency (Reduced Hazard Classification (H/C))
Storage (Reduced logistical foot-print)

The Good News:

Afghanistan 2009 –

MRAP vehicle destroyed by a powerful IED that ruptured the hull and fuel tank, engulfing the vehicle in flames including (16) M768 60mm IM-protected mortar rounds

All 7 crew members survived
IM Update

- IM Strategic Plans (IMSPs) continue to garner the attention of senior military leadership
- Joint IM Test Standards and Passing Criteria Issued (USD(AT&L)Memo 1 Feb 2010)
- DoD FY11/12 IMSPs Approved Oct 2010
  - $572.9 (M) identified for DoD IM Investment across the FYDP(FY10-15)
- Joint Service IM Technical Panel (JSIMTP) is a Department resource
- Currently preparing for FY 13/14 IMSPs
- Updated “Business Rules” for IM Strategic Plans
  - Aligned with Joint IM Test Standards and reduced reporting requirements
- Updated IM Handbook (to be released late spring 2011)
DoD 6.2/6.3 program that develops and matures technologies for improving munition response to combat and accident hazards

Five Munition Area Technology Groups (MATGs) are focusing on DoD priority needs

Successes and transitions are occurring – IMX-101 for M795 155mm rounds, safer warheads
JIMTP S&T Focuses on DoD Munitions Portfolio

DoD Portfolio contains five primary areas where Non-compliant munitions are identified for procurement.

Munition Area Technology Groups (MATG)

Technology Requirements

- High Performance Rocket Propulsion
- Reduced Smoke Rocket Propulsion
- Minimum Smoke Rocket Propulsion
- Blast Fragment Warheads
  - Underwater Warheads
  - Multi-Purpose Blast Warheads
  - Demo
- Anti-Armor Warheads
  - Boosters
- Large Caliber Gun Propulsion
  - Medium Caliber Munitions
  - Special Purpose (e.g. non-lethal)
  - Pyro/Flare/Smoke
  - CADs/PADs
  - Small Caliber
Joint Fuze Technology Program

- **VISION** – Advance and maintain a healthy U.S. industrial and fuze technology base; establish early and continued government involvement in the development, application, and transition of fuze technology to munitions development.

- **4 Fuze Area Technology Groups:**
  - 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 (DOE)
  - Industry via DOTC
Joint DoD/DOE Munitions Program (JMP)

25 Years of Interagency Cooperation to Develop Advanced Munitions Technology

• **Goal:** Effect major improvements in munitions performance, safety, and affordability by using and adapting specialized DOE/NNSA skills, facilities, and tools

• Performers: Sandia, Los Alamos, and Lawrence Livermore National Laboratories

• Approximately 35 projects arranged in 5 focus areas:
  - Modeling & Simulation (M&S)
  - Energetic Materials (EM)
  - Initiation, Fuzing & Sensors (IFS)
  - Warheads & Penetrators (W&P)
  - Munitions Lifecycle (ML)

Over 60% of budget goes toward developing modeling & simulation tools in all focus areas
Conventional Weapons Roadmap
6.2/3 Budget FY99-10 Conventional Weapons

![Graph showing the budget for conventional weapons from FY99 to FY10.](image)
Conventional Munitions RDT&E
Conventional Munitions Procurement
Process Overview

Capability Area

Weapon Systems

S&T Investments
DOTC Mission

• Demonstrate Feasibility and **Transition** Advanced Explosives, Propellants, Pyrotechnics, Warheads, Fuzing and Demilitarization Prototype Technologies
  • Advocate a critical mass of world-class technologists to meet the Department of Defense needs for conventional energetics (explosives, propellants, pyrotechnics), warheads, fuzes, and demilitarization
  • Operate as an “open” center in which industry, academia, and other Government organizations and departments can freely participate
  • Be a focal point to rapidly **transfer technology** to the war fighter
  • Develop strong working affiliations with private and public energetics, warhead, fuze and DEMIL facilities and technology organizations
  • Leverage governmental and private sector research and development resources to maximize return on investment
    • Promote non-traditional defense contractor involvement
    • Promote innovation
DOTC Resources

![Bar chart showing DOTC Resources from 2000-2011 in millions of dollars. The chart indicates a significant increase in resources from 2004 to 2010, with a slight decrease in 2011.]
Questions?