UPDATE ON NATIONAL SMALL ARMS CENTER

Frank P. Puzycki
Research Program Director

17 May 2006
AGENDA

- Intent
- Progress
  - Requirements
  - Awards
  - Membership
  - Communication
- Issues
  - International Structure
  - Funding
NSAC/NSATC - INTENT

- A Virtual Center Headquartered at US Army ARDEC
- A Consortium of Industry/Academia/National Labs (NSATC) operating under:
  - A Consortium Member Agreement (CMA) and
  - An Other Transactions Agreement (OTA)
- Agenda Driven by the Joint Service Small Arms Master Plan
  - Built Upon the Transformation Strategies of the Services
  - Supported by Joint Small Arms Capability Based Analysis
- Principally to Give More Visibility to the Need for Greater Resources for Small Arms Technology
Conceptual Basis

- NSATC is a Self Governed Organization
- Organized Under the Aegis of the National Cooperative Research and Production Act (NCRPA) of 1993 as Amended
- Has Limited Civil Anti-trust Liabilities if Registered with the Federal Trade Commission and Department of Justice
- NSATC Registered on 4/7/04
- OTA For Prototyping – Authorized by Section 845 of the 1994 National Defense Appropriations Bill, as Amended
How It Differs

- Other Transaction Agreement (OTA) Driven Process
  - Requires USG to Stipulate Desired *End Results*
  - Allows Consortium Members to Propose the How’s, When’s and Cost’s
- More Open Negotiations
- More Innovative Solutions
- Non-traditional Industries/Academe Influences
What It Is!

- Industry/Academia
- Centric
- Innovation
- Center

= (IC)^2
REQUIREMENTS

- First white paper cycle completed in August 2005
- Impacted Joint Small Arms Capability Analysis
- Aided in redefining nine affinity groupings
THRUST AREAS

Affinity Groupings

Smart Munitions
Materials & Processes
Technical Fire Control
Modeling & Analysis
New Concepts and Applications
Warheads & Energetics
Lethality & Utility
Tactical Fire Control
Weapons Mechanisms
REQUIREMENTS

- Request for Business Development Proposal Initiative Launched
  - Twenty-six proposals received and evaluated by a multi-service/agency team
  - Defined 10 new avenues of investigation under the JSACA
  - Referred to Business Development Committee for Marketing
  - NSAC marketing to in-house PM organizations
Awards

- Seven Awards in FY05 Totaling $3.3M
- Seven Awards in Process for FY06
- Potential for a minimum of 3 additional awards this fiscal year
- Loss of Charter Grants-Officer
- Negotiations phase remains the wild card of this OTA based process
<table>
<thead>
<tr>
<th>Description</th>
<th>Company</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighter and Smaller Crew Served Weapons</td>
<td>Barrett Firearms</td>
<td>$766,350</td>
</tr>
<tr>
<td>Recoil Mitigation &amp; Energy Conversion</td>
<td>Cape Aerospace</td>
<td>$261,000</td>
</tr>
<tr>
<td>5.56mm Polymer Cartridge Case Development</td>
<td>Mississippi Polymer Technologies</td>
<td>$250,000</td>
</tr>
<tr>
<td>5.56mm Polymer Cartridge Case Development</td>
<td>Polytech Ammunition Co</td>
<td>$750,016</td>
</tr>
<tr>
<td>40mm Low Recoil Weapon System</td>
<td>FN Herstal</td>
<td>$443,000</td>
</tr>
<tr>
<td>25mm Lightweight Composite Barrell Development</td>
<td>MER Corp</td>
<td>$130,000</td>
</tr>
<tr>
<td>Project Description</td>
<td>Contractor</td>
<td>Award Amount</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>--------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Lubeless Weapon Coatings Development</td>
<td>Integran Corp</td>
<td>$235,000</td>
</tr>
<tr>
<td>Lubeless Weapon Coatings Development</td>
<td>ATFI</td>
<td>$235,000</td>
</tr>
<tr>
<td>Lightweight 7.62mm Ammunition Study</td>
<td>Fleximation</td>
<td>$71,488</td>
</tr>
<tr>
<td>Thinwall Cartridge Case for 7.62mm Ammunition Effort</td>
<td>SNC TEC</td>
<td>$784,794</td>
</tr>
<tr>
<td>Lightweight 7.62mm Ammunition Study</td>
<td>Frontier Performance Polymers</td>
<td>$87,154</td>
</tr>
<tr>
<td>Lightweight 7.62mm Ammunition Study</td>
<td>Mississippi Polymer Technologies</td>
<td>$79,958</td>
</tr>
</tbody>
</table>
Membership

- FY05 Membership (9 months) increased from 27 to 52 members
- FY06 Membership increased by 10 to date
- University-outreach program
  - Local based schools
  - Targets of opportunity
  - Extended Reach
  - “Walk-ups”
Membership Demographics

- Weapons Systems Developers/Producers
- Ammunition & Energetics Producers
- Materials and Coatings Specialists
- Research Institutes & Universities
- Manufacturing Specialists
- Engineering Services Firms
- Electro-optical specialists
Membership Process

- Applications available on-line at NSAC website
  - Application
  - Consortium Member Agreement
  - Background Information

- Contact Executive Director or Research Program Director directly
Points Of Contact

Frank P. Puzycki (Research Program Dir)
- 973-724-6081
- frank.puzycki@us.army.mil

Barbara Byrnes (Executive Director- NSATC)
- 703-212-8030
- bjbeme@aol.com
Communications

- Still in teething pain stage
- Webpage has proven to be a major plus
  - “How To” articles
  - J SACA Developments
  - USMC IAR Advanced Draft of SOO
- Webpage to be augmented by Collaboration Software Suite
  - Present Issues to Membership
  - Brainstorm in the Virtual Environment
  - Unexpected uses
Welcome to the National Small Arms Center (NSAC) Website!

The NSAC and its partnering organization, the National Small Arms Technology Consortium (NSATC), are focused on one prime objective—producing innovation in small arms comprising personal defense, individual, crew-served and mission-unique weapons, munitions, fire-control and ancillary devices.

If you are already a member, you recognize the unique opportunity you enjoy to influence the Joint Services emerging requirements processes through our annual White Paper solicitation event as well as the subsequent Request for Proposal Process (RFP) wherein you can competitively compete for technology base funding opportunities. If you currently are not a member, let me wholeheartedly extend an invitation to join this forward-looking initiative. Forms and information are attached at the appropriate tabs of this website. If you have detailed questions, contact our Executive Director, Ms. Barbara Byrnes at 703-242-6030 or myself at 973-724-0061.

The Center is a virtual center spanning Government and Industry across the Nation and around the world. Foreign corporations and universities are encouraged to join the Consortium subject to U.S. Government approval and compliance with export control laws. Several of the current members are from foreign nations. Consortium members collaborate with the Government to identify and select the best technologies, obtain financial resources and execute best value projects.
ISSUES

- ITARS
  - Created difficulties on extant contracts
  - Will impede information sharing possibilities in the future
  - Seeking some form of Omnibus Relief from State Department or other innovative approaches toward a “One size fits all” alternative
ISSUES

Funding

- Our reputation creates OPM opportunities
- JSSAP making headway in expending Tech Base Steady State Funding Increases
- Marketing RBDP proposals within and external to ARDEC to augment small-arms unique research
- We are gaining traction and developing the compelling story
SUMMARY

- Active programs in lubeless weapon technology, lightweight cartridge cases and recoil mitigation in progress
- New start effort – USMC IAR Program
- Membership continues to expand
- Funding augmentation being aggressively pursued
"UNCLE SAM WANTS YOU!"
"TO INNOVATE!"

Contact:
Darold Griffin / Barbara Byrnes
703-212-8030
EME1BMT@aol.com