

Small Arms Systems	
ID	Title
9539	Integrated Rifle Barrel Reference Sensor with Position Compensating Reticle
9684	Lethal Limited Range Round
9855	Lightweight Small Arms Technologies
9861	Strategic Tripartite. Historic Opportunities for US and NATO Ground Combatants
9863	The Next Generation: The Case for a New NATO Rifle and Machine Gun Cartridge
9880	JSSAST Panel
9895	National Small Arms Center Update
9898	Application of IWARS in Small Arms Development
9909	Small Arms Modeling and Simulation
9915	Advanced Remote/Robotic Armament System (ARAS)
9916	Advanced Fire Control Technology for Small Arms Army Technology Objective (ATO)
10000	Grenade Launchers in China
10004	Small Caliber Propellant Solutions for the U.S. Military
10055	K11, Dual-Barrel Air-Burst Weapon
10070	Advancements in Personnel Incapacitation Methodologies for Multiple Projectile Cartridges
10136	R&D Activities in Support of the Canadian Small Arms Replacement Project
10137	Small Arms Weapon Integration on the Ramp of the V-22 Osprey
10144	The 0.50 Caliber Multi-mode Machine Gun and Family of Enhanced Ammunition: A Complete Weapon System for Remote Mounts, Fighting Vehicles and Aircraft
10149	DARPA SCOPRIION Program Transition to Army Advanced Technology Objective Program: A Success Story
10169	M855A1: The Army's New Combat Round
10170	Case Weight Variation Reduction and Subsequent Ballistic Dispersion Improvements in M118LR
10172	Aluminum 5.56 Case Development: Continued Success with an Advanced Lightweight Material
10183	.50 Caliber Steel Case Development: Design and Development of a Lightweight Case Compatible with Modernized Production Processes at the Lake City Army Ammunition Plant
10186	MEMS S&A for Munitions
10188	JSSAP Futures 2012-2020
10193	Advanced Lethal Armament Technology for Small Arms
10194	ITAR: The International Trade in Arms Regulation: Changes and Updates Relevant to the Small Arms Community
10195	Effects of Barrel Length on Sound Measurement, Bore Pressure, and Bullet Velocity
10199	International Efforts to Regulate or Prohibit Military Small Arms Ammunition
10200	Developing Reduced Range Ammunition for Training and Urban Combat
10201	Developing InfraRed (IR) (Dim) Tracer Compositions for Reduced Signature
10202	Enhanced Warfighter Capability with Direct and Indirect Small Arms Ammunition

10213	Lightweight Small Caliber Ammunition (LSCA) Lessons Learned From Prototype Fabrication to Full Production Rates
10216	Malodorants for the Tactical Force – Providing the Right Response
10226	Testing Non-lethals: Finding the Right Tools for the Job
10084/10178	GAU-21 CDWS Platform Integration/GAU-21 Airborne Crew Served Weapon System
9961/9962	40mm Low & Medium Velocity Munitions

Gun & Missile Systems	
ID	Title
9652	Munition Safety
9707	Modeling of Fluid Energy Milling Process
9708	Simulation of Cellulose Nitration Reaction
9714	Demonstration and Validation of Lead-free Ballistic Modifier for Rocket Propellants
9720	Miniaturized ESAD Development
9827	Environmentally Acceptable Alternatives to Lead Azide and Lead Styphnate
9848	25mm Non-Energetic Fragmenting Cartridge
9857	120 MM XM360 Gun Program – Test & Evolution
9862	Howitzer Digitization Engineering Issues
9873	20mm Ammunition & Barrel Clamp Interaction
9878	Unique Partnership to Provide Precision and Lethality to Tomorrow’s Warfighter
9886	Characterizing Performance of Precision Projectiles
9894	Design of an Intelligent Round Counter for Monitoring Ballistic Events Experienced by a Gun Barrel
9896	NavFire Guidance System – Integrated GPS and Mission Computer for Future Navigation Solutions
9899	MK 51 Modular Advanced Weapon System (MAWS)
9905	25mm x 137 APEX Aircraft Ammunition
9908	Numerical and Experimental Comparison of Muzzle Brake Impulse Reduction on a 120mm Cannon System
9910	Magne lok™ Technology – Achieving high torque-densities with a novel electromagnetically actuated band-brake
9928	SEVER Rarefaction Wave Related Projectile Launcher
9936	“Lightening Strike” – An Indirect Fire Concept Utilizing Combustion Light Gas Gun (CLGG) Technology to Achieve Extreme Ranges
9945	Super 40mm to 30mm Ammunition Comparison– Performance/Lethality
9946	The 30mm x 173 PELE: The Single Shot Solution for Combat Vehicles and Surface Combatants
9960	Accurate and Safe Alternative Targeting Solution for Man Portable Rocket Weapon
9974	Technology Trends in Fuzing and Munitions Power Sources
9990	High Performance BKNO3 Igniter Formulations
10001	Ageing Effects on Performance of Small and Medium Calibre Ammunition
10006	Medium and Large Caliber Propellant Solutions
10021	Remote Guardian System(TM) Defensive Weapon System
10028	20mm Ammunition Life Cycle Investigation
10032	The Advance Case System (ACS) program for 120mm Tank Training Ammo
10033	Selectable Effects Warhead Technology Demonstration
10034	Mortar Guidance Kit (MGK)

10049	5-Inch Long Range Land Attack Projectile (LRLAP)
10057	Smart Munitions - The Right Response for Today's Battlefield
10074	Advanced Precision Kill Weapons System II
10092	Cannon Life Extension using Explosive Bonding
10135	Hypersonic Plasma Particle Deposition Coating...Making 21st Century Weaponry Last into the 22nd
10139	LW25 Programmable Air Burst Munitions
10140	30mm x 113mm Traced Target Practice (TPT) Munition
10141	LW25 High Explosive Dual Purpose (HEDP) Munition
10142	Hovering Precision Weapons (HPW): Enabling Precise Surgical Strike and Collocated Close Air Support from Tactical to Strategic Distances
10143	Low Volume, Negligible EMI Advanced Guided Bullet and Mortar Flight Control Actuators
10146	Precision Guidance Kit (PGK)
10147	Scorpion Small Smart Weapon
10150	Exo-atmosphere Propulsion for Hypersonic Projectiles
10151	Ultrasonic Characterization of Explosively-Bonded Gun Tubes
10153	Indirect Fires Precision and Lethality Enhancements through Digitization of Artillery and Mortar Weapon Systems
10157	Modular Design of Direct Fire Medium Caliber Gun Systems for Joint Operations
10158	Pyrotechnic Shock Loading of the M82 Percussion Primer in the M777 Light Weight Howitzer Magazine Assembly
10160	Use of Non-metallic Materials in Gun-Launched Artillery Projectiles
10171	Making Affordability Work
10174	Improving the Accuracy of Precision Guided Munitions with a GPS Ephemeris & Ionospheric Correction Sharing Service (GEISS)
10175	Experimentation in Integrated Weapons Solutions for Unmanned Systems – Getting Past the Demonstration
10176	Development of a Solventless Propellant for use in 120mm Tank Training Rounds
10179	Automated Projectile Design Software
10181	Affordable Precision Munitions
10190	JSF Missionized Gun System
10218	Diode Pumped Laser Ignition System (DPLIS)
10219	Propulsion System Design in a Low Pressure Gun System
10220	Extended Area Protection and Survivability (EAPS) 50mm Cannon
10222	Advanced Gun Barrel Technology Program, Background and Results
10224	Warfare has changed – so should have methods: Experimental investigation of the performance of modern medium and large calibre ammunition in urban terrain
10225	Warfare Has Changed: Investigation of the Performance of Ammunition in Maritime & Urban Environments
10228	CROWS II Vehicle Integration
10229	The 155MM M795 Artillery Shell Loaded with IMX-101
10231	The Rarefaction Wave Gun (RAVEN) Program

10235	EFV 30mm Ammunition Feed System
10236	Analysis of Requirements for Engaging Defilade Targets with 40mm Grenades
10350	Scalable Lethality: 'Dial-a-Yield' Approach to Greater Precision Engagement
10593	Non-Incendiary Artillery Marking and Illumination Solutions
9869/10148	Modeling of Composite Wrapped Cannon Barrel/Non-Destructive Inspection & Design

Poster Presentations	
ID	Title
9722	<u>Application Options for 1st Environment Sensors</u>
9893	<u>Development of a Nondestructive Testing Field Inspection Vehicle Designed to Scan Cylindrical Structures</u>
9925	<u>Case Studies for Improved Sustainment of Bullet and Bullet Assembly Machines</u>
10005	<u>Fire Control Systems for Heavy Machine Guns: Winning the Current Fight while Simultaneously Modernizing for the Future</u>
10100	<u>Liquid Ceramic Coatings for Signature Reduction in Small Arms</u>
10126	<u>New Power, Lightweight Materials, and Sustainable Design Tools for Small Arms Systems</u>
10128	<u>Using Triboluminescence to Detect Impacts for Defense Applications</u>
10138	<u>FEM Analysis of a Barrett M99 0.50 Caliber Rifle Barrel</u>
10145	<u>Feasibility Study of New 60mm Mortar Base Plate Prototype</u>
10155	<u>Characterization of the Emergent Flame and Transient Pressure History of the M299 Ignition Cartridge at 70°F and -50°F</u>
10168	<u>Individual Airburst Weapon System (IAWS)</u>
10185	<u>Continuous Improvement in Ammunition Production Quality: Advanced Monitoring and Detection Tools at the Lake City Army Ammunition Plant</u>
10192	<u>Miniature Integrated Capacitive Discharge Unit for Detonation and Ignition</u>
10223	<u>Extreme Environment Measurement Device (E2MD) Instrumenting Projectile Success</u>
10482	<u>Small Arms Mounted Radar Sensor for Improving Aiming Accuracy</u>
10578	<u>Small Caliber Dispersion Modeling</u>