

DOTC Initiative Abstracts
For active initiatives as of September 30, 2011

Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
BRG 002	Development of MEMS Fuze Testing Capability	Action Manufacturing	ARDEC-FUZE	To develop tools and methods to validate MEMS firetrain elements and firetrain designs in order to rapidly achieve fuze system integration and qualification for various applications.	31-Aug-11
0901 INIT 113	Metal and Plastic Components for S&A Fuzes	Advanced Powder Products, Inc.	ARDEC-FUZE	1) To fabricate plastic and metal injection molded components and other necessary fixturing and tooling to properly manufacture and inspect the components. 2) To develop micro-system manufacturing techniques and technologies to enable the development of small, low cost, and smart fuze systems.	31-Jan-13
0901 INIT 238	Advanced Focus Fragmentation and Blast Warhead Technology	Aerojet	ARDEC-EWMTD	To develop an effective Active Protection Systems (APS) warhead by investigating both fragmentation and blast warheads and improve warhead performance over a wide array of incoming threats while reducing vulnerability of the armored fighting vehicles.	30-Jun-12
1003 INIT 052	Energetic-Bonded Closures for Venting Cookoff	Aerojet Corporation	ARL-ABERDEEN	To develop and demonstrate a bonded-closure rocket motor using an energetic adhesive to mitigate cookoff. Many fielded rocket motors react violently when exposed to thermal stimuli. Current requirements mandate that all fielded systems pass Insensitive Munitions testing, but there is inadequate technology available to meet these requirements for many high-performance munitions.	20-Jul-13
BRG 011	Handheld Detector and Identifier of Explosives and Hazardous Materials	Ahura	ARDEC-EWMTD	To advance state of the art technologies leading to development of a hand held detector and identifier of explosives that is sensitive, reliable, inexpensive and easy to operate.	31-Aug-11
1101 INIT 220	MEMS Fuze S&A Component Advancement	Alliant Techsystems	PM-CAS	To develop components that will directly have a cost reduction or risk reduction impact on the ARDEC Micro Electro-mechanical Systems Safety and Arming Device (MEMS S&A) manufacturing project. The contractor will work closely with the ARDEC MEMS team to establish a high volume MEMS S&A assembly capability using these alternative components. The contractor will work with vendors to demonstrate prototype manufacturing processes and alternative materials suitable for integration into initial production after validation.	30-Oct-12
1101 INIT 088	120mm Mortar Extended Range	Alliant Techsystems Inc., Energetic Systems Division	ARDEC-MUNITIONS	To increase the maximum effective range of the 120mm Mortar system by optimizing the propellant to be used in the propulsion system. The propellant candidate, ECL, is an RDX based propellant with a higher energy density than the current propellant. Under this effort, ECL shall replace the current propellant in both the 120mm propelling charge AND ignition cartridge.	30-Jun-12
1001 INIT 255	Extended Cloud Decoy Development	Alloy Surfaces Company, Inc.	PM-CCS	To develop an extended cloud M211 decoy design that provides increased spatial distribution and more uniform energy intensity within that spatial distribution. The current M211 decoy's baseline design approximates the shape of an ellipsoid with the major axis in the direction of ejection. The primary goal of the redesign effort will be to increase the ellipsoid minor axis by 50% without reducing the major axis size. Analytical and Computational Fluid Dynamics (CFD) tools will be developed to support the decoy improvement effort.	18-Dec-12
BRG 012	Warhead Fabrication and Testing to Support DOTC	American Ordnance, LLC	ARDEC-EWMTD	To fabricate, load, and assemble prototype warheads using designs provided by Government sponsor.	30-Dec-11
1001 INIT 225	Test & Evaluation for Force Protection Initiatives	American Systems Corporation	ARDEC-EWMTD	To develop a full spectrum of protection capabilities utilizing existing industry, government and foreign technologies in an integrated system of systems that promotes threat detection and identification over a variety of standoff distances thereby providing an appropriate and escalated protection response against the threat.	20-Aug-13

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0901 INIT 017	Laser Induced Plasma Channel	Applied Energetics	ARDEC-WEAPONS	To develop a Laser Guided Energy (LGE) prototype system using Laser Induced Plasma Channel (LIPC) technology that will demonstrate target neutralization at a useful standoff range via a high voltage discharge from source to target.	30-Oct-12
0901 INIT 109	Advanced Focused Fragmentation and Blast Warhead Technologies for Active Protection Systems	ATK	ARDEC-EWMTD	1) To refine focused fragmentation and blast warhead technologies for application in future Active Protection Systems (APS) significantly reducing stationary and mobile warfighter vulnerabilities by providing counter-measure intercepting warhead and explosively formed penetrator technologies and capabilities. 2) To develop, fabricate and test multiple warhead concepts for rapid design, assessment and transition to the warfighter.	30-Apr-12
0901 INIT 233	Cast Cure Explosives for Scalable Technology for Adaptive Response (STAR)	ATK	ARDEC-EWMTD	To support the fabrication and testing of new environmentally benign propellant formulations including formulations analysis, mix and cure processes, and conduct characterization testing on to include but not limited to performance, safety, IM, System level and mechanical properties testing.	30-Sep-11
0901 INIT 248	Advanced Propellant Technology: EI, ECL and SCDB	ATK	ARDEC-EWMTD	To demonstrate improvement on the current labor intensive manufacturing process for solventless propellant. PAP8386 is over twice as expensive on a per pound basis as the current solvent M14. A shear roll mill would replace the labor intensive batch pre-roll and even speed processes with a cost effective system. Ultimately, this technology could be used to reduce the cost of all solvent less propellants.	30-Jul-11
0901 INIT 261	Metalized Explosives	ATK	ARDEC-EWMTD	1) To develop a new castable or pressable high-blast explosive formulation, using metals or metal composites that offer performance and IM properties that exceed current aluminized formulations such as Navy plastic bonded explosives (PBXN)-109. 2) To establish baseline and new formulation performance characteristics through dent/rate testing, gap tests, blast overpressure, and other performance tests.	30-Sep-11
0901 INIT 263	Bursting Munitions Technology Enhancements	ATK	ARDEC-FUZE	To complete the Army STAR ATO program via demonstration testing and associated performance analysis and perform a packaging study for future growth in lethality and producibility of bursting munitions.	30-Aug-12
0901 INIT 270	Miniature Fuze Sensor Technologies	ATK	PM-CAS	To develop new ESD hardened miniature proximity and detonation sensors and circuitry to meet current and future challenges on the battlefield.	30-Jun-13
0901 INIT 287	TEX Scale-up and TEX-Based IM Booster Formulation	ATK	ARDEC-EWMTD	1) To improve the hazard and Insensitive Munitions (IM) response of the STAR 105mm warhead by developing a less sensitive booster material. 2) To develop and evaluate candidate formulations for material compatibility, shock sensitivity and detonation velocities and compare these results to PBXN-5 and PBXW-14 formulations.	30-Sep-11
0901 INIT 367	Guided Multiple Launch Rocket System (GMLRS) Alternative Motor Risk Reduction II	ATK	PEO Tactical Weapons	To mature the design of the rocket motor for the Guided Multiple Launch Rocket System (GMLRS), the Army's precision strike artillery weapon, capable of servicing imbedded targets where collateral damage is of great concern, to be IM-compliant.	30-Sep-11
0901 INIT 378	81mm Mortar HE Projectile with ELP Technology	ATK	PM-CAS	To develop an 81mm mortar projectile that is significantly more lethal than the XM1143 (50 percent threshold, 80 percent objective) while focusing on minimizing unit cost and increasing producibility.	30-Aug-12
0901 INIT 477	Common Mortar S&A Build for Fuze Integration and Ballistic Testing	ATK	ARDEC-FUZE	To build, test, and deliver 100 CMSA units and lead charges to support M734A1 fuze integration and ballistic testing to fully demonstrate capability.	31-Jul-11

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0901 INIT 900	APMI Phase II	ATK	PM-CAS	1) To support the rapid production and fielding of a 120mm mortar cartridge that will precisely defeat targets with minimal collateral damage. 2) To design, fabricate, and qualify all unique associated items of equipment (including, but not limited to, setter device(s), cables, training mock-ups, extractor equipment, packaging, etc.) necessary for the operational use of a precision 120mm mortar cartridge.	30-Nov-11
1001 INIT 137	New Propellant Formulation Development	ATK	ARDEC -EWMTD	To tailor current propellant formulations to meet the needs of today's war fighter. This would be accomplished by an increased understanding of current deterrent coatings, stabilizers, and propellant materials used in all types of propellants. Adding to this would be the development of novel materials for these applications.	15-Dec-12
1001 INIT 215	RSI Scale-Up for Manufacture	ATK	NAVY	To develop a sustainable, environmentally friendly, and lower cost production process for RSI-007 molding powder.	6-Nov-12
1001 INIT 233	Pilot Plant & Testing Facility Leveraging for Manufacturing & Testing Government Proposed Rocket Propellant Formulations	ATK	ARDEC-EWMTD	1) To support the development of environmentally benign rocket propellant formulation replacements for Ammonium Perchlorate based propellants for use in gun launched munitions including 155 and 105 mm artillery projectiles, 120mm Mortars, and shoulder launched munitions with fire from enclosure requirements. 2) To conduct formulations analysis, create mix and cure processes, and conduct characterization testing on environmentally benign propellant formulations to include but not limited to performance, safety, IM, System level and mechanical properties testing.	15-Nov-13
1001 INIT 293	MEMS S&A Device Integration and Prototype Manufacturing	ATK	ARDEC-FUZE	To develop and prototype an integrated manufacturing process for the fabrication, explosive loading, optical inspection, and robotic assembly of metal MEMS S&A devices.	31-Jul-13
1001 INIT 301	Advanced Proximity Sensor Development and Demonstration	ATK	ARDEC-FUZE	Current proximity sensor technology has been deployed for many years and used against a variety of adversaries who now have developed effective countermeasures for defeating U.S. proximity sensors. U.S. forces have become increasingly dependent upon very few designs based on a common chipset. This commonality between designs makes the effort to develop countermeasures much easier than it was in the past. Additionally, many new friendly radio applications have been deployed, resulting in significant interference issues for a wide variety 1) To develop new proximity sensors that will overcome ever increasing countermeasure capabilities seen on the battlefield. Efforts will focus on improving proximity sensor technology or improving M789 30 mm HEPD performance.	20-Feb-12
1101 INIT 200	Precision Medium Caliber Armaments Initiative	ATK	ARDEC-WEAPONS	To address improvements in the technology area of Prototype Advanced Technology Armament Systems, which includes but is not limited to Remote Armaments, Directed Energy Armaments, Light Weight Gun Structures and Components, Prototype manufacturing Processes, modeling and simulation of small and medium caliber cannons and their ammunition and Prototype Manufacturing Processes.	20-Dec-13
0901 INIT 249	Cellulose Acetate Nitrate (CAN)	ATK	ARDEC-EWMTD	To make cellulose acetate nitrate and process it into an insensitive propellant to demonstrate its potential in high performance gun propellant.	30-Sep-12
1001 INIT 322	Advanced Decoy with UV Blocking Capability	ATK Launch Systems Inc	ARDEC-EWMTD	The contractor shall evaluate reformulations of the XM209-3 Developmental Decoy Flare for its ability to block UV. The contractor shall identify and eliminate the gas forming reactions causing high porosity grains. Additionally, nitrate oxidizers shall be evaluated as replacements for the ammonium perchlorate in the formulation.	29-Sep-12

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BRG 048	DNMT Synthesis, C-4 Drying Evaluation, and Insensitive Munitions Explosives Formulation	BAE Systems	ARDEC-EWMTD	To optimize the synthesis route for the manufacture of DNMT via oxidation of DAMT (3,5-Diamino-1-methyl-1,2,4-triazole) in the laboratory and deliver small scale samples to ARDEC for evaluation.	30-Jun-12
0901 INIT 172	TATB Synthesis and Recovery	BAE Systems Ordnance Systems, Inc.	NAVY	To develop a qualified TATB manufacturing capability via the Benziger process, from laboratory scale up through a minimum 50-gallon pilot scale.	30-Nov-11
0901 INIT 369	Wall Breaching and Advanced Warheads Development	Battelle	ARDEC-EWMTD	To further develop the Wall Breaching/Modular Breaching System (MBS) to include: investigating and identifying probable causes of the jet skewing in the present full scale ALSC designs; refining designs for defeating the concrete target in a reduced scale (66%); verifying performance through quick fabricating/testing cycles of discrete charges; testing full size octagonal arrays against target walls; and refining the designs to eliminate excessive weight to approach the requirement of a 35-pound system weight.	15-Mar-13
1001 INIT 116	Magnesium Aluminum Borides as Energetic Explosives	Ceramatec	ARDEC-EWMTD	To develop and prototype low hazard, low oxide, Boron based powders (varied Boron content, size, and reactivity) for explosive formulation and evaluation against typical magnesium and aluminum containing explosives.	30-Sep-11
1001 INIT 457	Improved Battlefield Effects Simulators	Chemring Ordnance	ARDEC-EWMTD	To design, develop, and assess the producibility of improved Battlefield Effects Simulators for U.S. Army Training Purposes. Several tasks will be accomplished and all will be fully interoperable with the current family of Launchers and/or the Chemring/Comet Pyrotechnic Launcher Platforms.	22-Jan-14
1001 INIT 084	Development of Prototype Reactive Armor Tile	CLogic	ARDEC-MUNITIONS	To use a number of commercial, off-the-shelf products such as high density polyethylene, metal matrix composites, inorganic fullerenes, nano materials and fiber metal laminates that possess the properties that are ideal for low-cost, lightweight armor materials. Lighter protection, based on composite materials can also be tailored against fragments from artillery, mortars and shrapnel. Protection against high explosives, especially IEDs which also produce significant blast, fragmentation and sometime shaped charges effect, requires more complex solutions, using designs of metallic and composite components.	15-Mar-13
BRG 054	Conversion of Depleted Uranium Munitions Components to Higher Value Products	CLogic	ARDEC-EWMTD	1) To develop prototype conversion and reuse manufacturing technologies for the production of high performance designs in metals fabrication, coating, and finishing that allow for rapid innovation and response. 2) To enable the development of rapid response precision manufacturing technologies using a number of unique material options.	30-May-12
BRG 056	Sustainable Precision Green Manufacturing Technologies for Indirect Fire Systems	CLogic	ARDEC-WEAPONS	To develop and prototype rapidly responsive and affordable precision manufacturing and processing methods are critical to support the Indirect Fire Systems weapon development programs.	30-May-12
BRG 057	Sustainable Precision Green Manufacturing: Advanced Hybrid Reactive Armor Materials	CLogic	ARDEC-EWMTD	To design, develop, evaluate, and prototype lightweight reactive armor systems using hybrid armor materials for use in reactive armor tiles and "high rate" fabrication capabilities reduce the weight of armored vehicles by means of replacement of steel with advanced armor solutions in vehicle structures and components. Technologies include lightweight composites, ceramics, metal-ceramic compounds, nanomaterials, and more advanced reactive and active protection systems.	30-Sep-11

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1101 INIT 016	Novel Armor Solutions for Advanced Survivability and Defeat	CLogic	ARDEC-EWMTD	To focus on low-cost, high strength armor hybrid solutions including low cost titanium alloys that are self-healing and adaptable and use of macro-composite material encased in shock-absorbing polymers and high-strength ballistic fibers, including aramid, high-modulus polyethylene, high-strength glass and other advanced fibers. The contractor shall reduce the weight and complexity of current armor systems by identifying more weight efficient, blast efficient, corrosion resistant, and cost-effective armor materials that provide thermal signature reduction and enhanced soldier protection.	1-May-14
1001 INIT 524	Prototype Reactive Armor Fabrication	David Earl Cain Consulting	ARDEC-MUNITIONS	To develop prototype hardware for armor that will require use of standard production techniques and the development in: optical processing technologies, coating technologies, redesigned tooling processes, flexible cell equipment and methods that provide rapid processing response time, use of greener materials, and reduce waste typically generated in the production of these items.	30-Sep-11
BRG 058	Warhead Fabrication, Load & Test	Day and Zimmermann, Inc.	ARDEC-EWMTD	To test Load, Assemble, and Pack (LAP) capabilities at current production facilities for prototype 155mm. IM, HE, M795 projectiles and HE mortars with insensitive munitions (IM) melt pour explosive.	30-Nov-11
BRG 068	Replacement for Metal Accelerating Formulations	EBA-D	ARDEC-EWMTD	To develop prototype explosive formulations that have potential utility in the development of advanced warheads.	30-Jun-12
0901 INIT 193	Proximity Sensor for Bomb-Like Munitions	Electronics Development Corporation (EDC)	ARDEC-FUZE	1) To support the development of advanced sensors, Electronic Safe and Arm Devices (ESAD) and other fuze electronics to be used in applications such as PDGM or other highly reliable munition systems. 2) To define system requirements, perform detailed system design and fabricate prototype hardware for testing in both static and dynamic tests.	31-Dec-11
0901 INIT 299	Advanced Proximity Sensor for Active Protection Systems (APS)	Electronics Development Corporation (EDC)	ARDEC-FUZE	1) To support the development of advanced sensors, Electronic Safe and Arm Devices (ESAD) and other fuze electronics to be used in applications such as Active Protection Systems, guided artillery, and/or dropped bombs. 2) To define system requirements, perform detailed system design and fabricate prototype hardware for testing in both static and dynamic tests against real targets.	31-Jan-12
1001 INIT 439	Design and Development of ESADs	Electronics Development Corporation (EDC)	ARDEC-FUZE	To support the development of advanced sensors and Electronic Safe and Arm Devices (ESAD) to be used in applications such as Active Protection Systems, guided artillery, and/or dropped bombs. The first portion of this program will be dedicated to defining the system requirements, characterizing the selected targets, and providing improved testing mechanism. Effort will also be completed in the area of advanced fuze system electronics, fabrication of advanced multi-point warheads, fuze firmware, and advanced ESAD sensor development.	15-Aug-13

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
0901 INIT 469	Setting up a Continuous Cathode Process for Reserve Batteries & Development of a STAR Thermal Battery	EnerSys Advanced Systems	ARDEC-FUZE	1) To develop a continuous cathode process to increase the mechanical strength of the batch cathode material to the necessary level, incorporating that method into a larger process to produce continuous material, and demonstrating the suitability of the resulting process and material. Applicability of this effort includes appropriate thermal battery systems including the STAR 105-mm or 155 mm Precision Munition application as well as reserve battery systems for the cluster munition applications. 2) To determine which available system produces the necessary performance (current density and capacity) with the least amount of program risk through cell- and battery-level testing and evaluation. 3) To deliver battery prototypes for further testing and system level integration.	30-Nov-11
1001 INIT 145	Aerodynamically Stabilized Flare	Esterline	PM-CCS	To develop a relatively inexpensive and effective forward-launched counter to current kinematic seeker CCMs by modifying an aerodynamic flare to accommodate a 44 gm steel weight that is bonded to the forward end of the flare. The expected improvement of the flight trajectory will result in a more reliable and safer trajectory of the end item.	20-Oct-11
1001 INIT 325	M1 Chaff Update	Esterline	PM-CCS	To develop and prototype an improved M1 Self-Protection Chaff Cartridge that offers increased aircraft survivability against hostile radars and radar missile engagements through leveraging the greater efficiency provided by resonant dipoles instead of harmonics. The M1 Chaff cartridge has been in service in the US Army for nearly 30 years.	17-Aug-11
1001 INIT 328	Multi Point Dispersal of SMD	Esterline	PM-CCS	To design, analyze and test new dispersal concepts for Pyrophoric Decoys to improve their effectiveness against advanced IR guided threats. These dispersal concepts will focus on provided a decoy cloud that has less intensity variation across its radiant surface when compared to the existing M211 cartridge.	18-Sep-11
0901 INIT 045	Shoulder Launched Warhead Technology for Defeat of MOUT and Urban Targets	GD-OTS	ARDEC-EWMTD	To develop efficient, light-weight forward precursor charges (PC) that are capable of defeating light armor and pre-damaging MOUT structures to allow passage of a bash-through blast/fragmentation warhead while supporting the shoulder launched system threshold weight of 20 pounds and the objective weight of 12 pounds.	1-Oct-12
0901 INIT 428	Development of Advanced Warheads	GD-OTS	ARDEC-EWMTD	To increase the lethality of advanced warheads against armor, personnel, and urban targets by incorporating critical technologies that make these warheads more multipurpose while being scalable, selectable and more IM-compliant. System applications include systems with diameters similar to 250MM GLMRS, 105/155MM Artillery, etc.	31-Dec-12
0901 INIT 443	Advanced Multi-Purpose Warhead	GD-OTS	AMRDEC	To develop advanced multipurpose warheads using hardened body/nose components for anti-personnel, light armor, and MOUT defeat, incorporating reactive materials and alternate explosives for enhanced blast, and substituting other liner materials to save on cost and complexity. The effort will include analysis, design, fabrication, and testing of alternate liner materials, for example, such as copper in K-Charge and molybdenum in extended Fast Jet (FJ) unitary warheads.	30-Nov-12
1001 INIT 093	DOTC-10-01 Whitepaper-WHD-10-02 GD-OTS NCV-Boeka	GD-OTS	ARDEC-EWMTD	To develop Scalable Technology Adaptive Response (STAR) devices that are multi-modal, yield-adjustable, and selectable allowing a highly flexible warhead to be tailored to specific needs with minimal collateral damage. Initial efforts will assist ARDEC in demonstrating the feasibility and/or effectiveness of initial concepts already defined, such as using biased scoring of fragmenting bodies in combination with selectable initiation to generate the desired mass distribution and pattern of fragments. Subsequent iterations will investigate ways to improve target lethality and reduce collateral damage.	20-Jun-14

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1001 INIT 095	25mm XM1049 Design Improvements	GD-OTS	ARDEC-MUNITIONS	To further develop and improve the 25mm XM1049 shaped charge armor penetration cartridge in the areas of safety, producibility, reliability, and performance.	30-Sep-11
1001 INIT 253	Small Caliber Ammunition Tracer Charging Process Optimization	GD-OTS	PM-MAS	To demonstrate tracer performance in accordance with specification MIL-DTL-1318C requirements using caliber .50 M17 drawing 7672165 components. The optimized bullet/tracer loading process produced by this program shall form an essential part of a new Caliber .50 bullet tracer loading facility.	15-Sep-11
1001 INIT 401	105mm Precision	GD-OTS	PM-CAS	1) To develop integrate, and demonstrate GPS enabled guidance technologies for 105mm artillery systems that enhance performance and survivability while reducing overall logistic burden to the user. 2) To demonstrate a low cost precision capability utilizing a gun hardened Control Actuating System that is adaptable to the existing family of advanced ammunition.	15-Oct-11
BRG 087	Development of Hardened Combined Warheads	GD-OTS	ARDEC-EWMTD	To research, develop and prototype warhead designs that provide greater multi-purpose and IM capability than is available in current systems. The focus of these efforts include the use "universal" explosives in present high-performance shaped charge devices offering higher blast capability while maintaining anti-armor performance, expansion of the explosive volume available for blast and fragmentation effects by using more space and weight efficient warhead designs and/or using reactive versus inert materials.	30-Sep-11
BRG 090	Explosive Deployment	GD-OTS	AIR FORCE-EGLIN	1) To perform computational analysis and fabricate and test hardware configurations with mechanical and thermal response characteristics of developmental munitions and/or explosives under consideration. 2) To implement, verify, analyze and assess the computational physics packages within the HULL dynamic continuum mechanics code and its associated sub-models and the development of insensitive loading procedures for the 105mm PGU projectiles.	1-Apr-12
BRG 098	Unitary Warheads	GD-OTS	ERDC-WATERWAYS	To increase the lethality of advanced warheads against armor, personnel, and urban targets by incorporating critical technologies that make warheads more multipurpose while being scalable, selectable and more IM-compliant devices. The specific technology candidates include GLMRS, VAPP, 30mm bullets, etc.	30-Aug-11
1001 INIT 089	Insensitive Munitions (IM) Design and Verification	GD-OTS	ARL-ABERDEEN	To provide innovative IM improvements that can be incorporated into existing production designs/hardware for legacy munitions.	31-Dec-14
0901 INIT 247	BLU Demilitarization using the Cryofracture Process	General Atomics	PM-JOINT SERVICES	To perform tests to demonstrate that BLU 91/B, BLU 92/B, and BLU 97/B munitions in CBUs that cannot normally be pulled apart or mechanically disassembled or are planned to be open burned/open detonation can be demilitarized using the cryofracture process. These items have been identified by DAC as capability gaps for the following DODIC families: E850, E890, J004, K133, K290, K299, and K301.	2-Aug-11
1001 INIT 021	Extended Prototype Demonstration Operations for the Cryofracture Process at McAlester Army Ammunition Plant (MCAAP)	General Atomics	PM-JOINT SERVICES	To carry-out extended prototype demonstration (EPD) operations of the MCDF using ADAM mines. The goal of EPD is to demilitarize approximately 100,000 ADAM mines over a period of three months and generate data that can then be applied for sustained demilitarization of ADAM mines at optimal conditions as well as for demilitarization of other munitions using the MCDF, the planned transportable cryofracture/plasma arc system, or any new facility using cryofracture technology.	26-Aug-11
1001 INIT 387	MEMS S&A Devices and MEMS G-switch Fabrications	HT Micro	ARDEC-FUZE	To develop and demonstrate MEMS Fuze/Safe and Arm Technologies, specifically focusing on safe and arm mechanisms (SAMs) and impact switches for incorporation into miniature fuzing systems.	31-Jul-12

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1001 INIT 002	Next Generation Prototype Remote Armament System Technology	Imperial Machine & Tool Co.	ARDEC-EWMTD	1) To develop, through the use of modeling and simulation of novel new developments in the next generation prototypes, low-cost guided munitions capable of reaching targets in a fraction of the flight time of a traditional backpack UAV. 2) To develop more efficient and effective than current guided projectiles of the same caliber and extend the lethality of the current ammunition without compromising the effectiveness of the gun system or the Warfighter.	30-Jun-13
1101 INIT 068	MEMS S&A for Full Bore Submunitions	Kaman Precision Products	ARDEC-MUNITIONS	To develop and demonstrate a systems architecture solution for a submunition fuze that provides >99.75% reliability and to achieve a technology readiness level (TRL) 6 by the end of 2013.	15-Mar-14
1001 INIT 117	M206 Weighted Nose IR CM and Low FOD Weighted Nose 1" x 1" IR Decoy Flare	Kilgore Flares Company, LLC	ARDEC-EWMTD	To improve the forward trajectory of the infrared (IR) decoy flare currently used in the forward fired self protection suite. This relatively simple low cost improvement increases the distance the flare flies in the forward direction and will improve effectiveness by providing enhanced decoy trajectory. It will also reduce the size of the dispersion cone of the flare allowing the flare dispensers to be aimed in a more forward and upward direction for further improved effectiveness of the entire flare suite.	20-Dec-11
0901 INIT 190	High Temperature Laser Diode Bar Based Ignition Technology for Artillery Systems	Lasertel, Inc.	ARDEC-WEAPONS	To develop a shock resistant, high temperature diode laser igniter for large U.S. caliber artillery, capable of providing repeatable and reliable ignition at extreme ambient temperatures and gun shock loading.	2-Jun-12
0901 INIT 388	Integrated Logistics and Maintenance Engineering	LESI	ARDEC-ESIC	To develop and demonstrate improved technologies, strategies, processes, etc. that will maximize availability, while minimizing life cycle cost and logistics footprint of munitions systems.	31-Dec-12
1001 INIT 365	Logistics Improved Supportability, Reliability, and Availability	Logistics Engineering and Systems Integration Services, LLC (LESI, LLC)	PM-SW, PM-JS, ARDEC -WPNS	To develop and demonstrate improved technologies, strategies, processes, etc. that will maximize availability, while minimizing life cycle cost and logistics footprint of munitions and armament systems. A key objective is being able to detect potential issues early in the design or development of such systems and provide solutions to mitigate these issues.	20-Apr-14
1001 INIT 499	More Affordable, More Lethal Projectiles	MEDICO INDUSTRIES INC	PM-JOINT SERVICES	To develop a comprehensive understanding of the composition-process-properties relationship for HF1 and HF1 with modified alloy composition. The first year of the program will be focused on developing the composition-process-property relationships for the HF1, model development, and instrumentation of the process equipment. The second year will focus on modified alloy chemistry, model validation, and improved fragmentation development. The third year will focus on the extending the methodology to other munitions and to fabricate sufficient quantities of the selected projectile bodies for testing and evaluation to support a limited production run.	30-Dec-13
0901 INIT 235	Enabling Technology for Fuze Signal Processor ASIC	Mixed Signal Integration Corporation	PM-MAS	1) To develop a small, highly integrated, low power signal processing ASIC device for use in proximity fuzing solutions for small/medium caliber munitions. 2) To design, layout, fabricate, evaluate and deliver prototypes of a low cost, programmable signal processor ASIC that is configurable for a variety of proximity sensing applications.	31-Oct-11
1001 INIT 083	Piezoelectric-based Power Technologies for Munitions	M-Mech Defense	ARDEC-FUZE	To develop and prototype fuzing systems that extend the state-of the art "smart fuzing" technology to medium and small caliber ammunition requiring small and long lasting power sources for their operation.	30-May-12

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1001 INIT 045	Mobile Plasma Treatment System Compliance Testing	MSE	PM-JOINT SERVICES	To design, procure, fabricate and install equipment as may be required to insure operation of the Mobile Plasma Treatment System.	30-Sep-12
1001 INIT 046	Cryofracture/Plasma Demilitarization System (CPDS) with a Cryofracture Pre-Treatment System to Treat Obsolete Munitions & Wastes	MSE	PM-JOINT SERVICES	To develop a mobile process that lowers demilitarization costs and reduces environmental impact by through processing of munitions on site, rather than being reconfigured for shipping or treatment by open burn/open detonation.	30-Apr-12
1001 INIT 047	Wet Chemistry Methods for Treatment of HC White Smoke Ordnance	MSE	PM-JOINT SERVICES	To identify a feasible wet chemistry alternative to open burning and incineration supporting the Enabling Technologies objectives and sub-objective ENT-10-43. Specifically, the proposed effort supports the Resource, Recovery, and Reuse thrust area as well as potentially lowering the cost and reducing the environmental impact of the demilitarization of HC smoke relative to incineration.	30-Oct-12
1101 INIT 340	Highly Integrated Advanced Proximity Sensors	Mustang Technology Group	ARDEC-FUZE DoD WASH HQ SVCS	To develop an advanced proximity sensor capable of operating in a complex battlefield environment that includes a rich RF environment with complex urban features.	10-Jan-13
BRG 130	Advanced Multipurpose Warhead	Nammo Talley Inc.	ARDEC-EWMTD	1) To develop, analyze, model, and validate the modeling through testing of the tandem multipurpose warhead concept against a wide range of target types. 2) To determine the lethality of the tandem multipurpose warhead to include exploration of warhead penetration through various urban targets to determine warhead initiation timing requirements.	1-Dec-11
1001 INIT 164	Determination of Deflagration/Detonation Characteristics of Selectable Technology for Adaptable Response (STAR) Main Charge Explosive	Nammo Talley, Inc.	ARDEC-EWMTD	To evaluate the detonation and deflagration characteristics of combined effects explosive candidates in support of STAR program objectives.	31-Aug-11
0901 INIT 437	Conformal Batteries for Fuze and Soldier Weapon Applications	nanoMaterials Discovery Corporation	ARDEC-EWMTDD	To further develop technologies that provide soldier and ordnance electric power including practical and cost-effective fuel cell technologies, improved mass and volumetric energy densities of battery technologies, and battery packaging solutions that meet unique system requirements for high performance electric power applications.	31-Oct-11
1004 INIT 002	Maturation of a Smaller, Cheaper High Performance Monolithic Ceramic Flyback Transformer for High Reliability Firesets	NASCENTechnology, Inc.	NAVY	The Government desires a highly reliable, miniaturized version of the larger monolithic flyback transformer in a smaller form factor. The objective of this initiative is maturing a new miniature (0.32"x0.32" footprint) monolithic ceramic flyback transformer design, hereafter called a "monolithic flyback transformer" from its current TRL4 level to beyond the TRL5 level and into the TRL6 level.	30-Jun-12
1001 INIT 531	Test and Evaluation Services for Hand Emplaced Munitions and Advanced Fuze/Sensor Systems	NTS	ARDEC-FUZE	1) To perform safety testing, environmental testing (including EMI/EMC testing), insensitive munitions testing, functional performance, and hazard assessment testing for prototype munitions and fuze/sensor systems. 2) To develop improved testing technologies, procedures, and testing and evaluation support for hand emplaced munitions and fuze/sensors systems.	20-Jul-13

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
BRG 134	Assessment Support of Direct & Indirect Fire Munitions Product Improvements for Insensitive Munitions Performance	NTS	OSD-ESTCP	1) To support DoD (all services) prototype weapons systems development thru testing of competitive, multiple manufacturing source munitions. 2) To select and define testing protocols (type, quantity, sequence, and data requirements) based on unique RDT&E results obtained throughout the weapon systems development and as necessary for qualification.	31-Oct-12
1101 INIT 080	High Aspect Ratio Metal Microfabrication for MEMS Fuzes	Nuvotronics, LLC	PM-CAS	To develop high-aspect-ratio microfabrication processes for military fuze components.	30-Apr-14
1001 INIT 424	Evaluation of New Lachaussee s.a. Model 230/TR Trace Bullet Loading (Charging) & Assembly Machine	Olin Corp.	PM-MAS	To develop and prototype the capability of a second NTIB US MILSPEC compliant SCA trace cartridge facility at the New Lachaussee Trace Charging/Assembly Unit, Model 230/TR.	31-Aug-11
1001 INIT 355	Manufacturing Evaluation/Scale-Up of DBX-1	Pacific Scientific	NAVY	To develop processes and scale-up methodologies for DBX-1 (copper(I) 5-nitrotetrazolate) , a compound that shows great promise as a lead azide (LA) replacement for ultimate transition to fleet weapon systems.	29-Nov-12
BRG 136	Enhanced Performance Propellants via UV Coating Technology	Polymer Processing Institute	ARDEC-EWMTD	To develop a scalable UV particle coating technology to impart desirable performance orientated properties for propellant grains with various size and geometry. Specific efforts will focus on formulation of UV coatings, development of the UV process and evaluate and characterize the performance of UV coatings.	30-Nov-11
1001 INIT 170	MEMS Fuze/Safe and Arm Component Technologies	Reynolds Systems, Inc.	ARDEC-FUZE	To develop and prototype automated MEMS safe and arm technology loading /manufacturing processes to press, load and assemble the micro-miniature (as small as .010-.020" across) explosive charges (CL-20 based explosives like RSI-007 and EDF-11) in order to make them viable for military systems.	1-Oct-12
0901 INIT 154	Using Eco Fuels at Army Ammunition Plants	SAIC	PM-JOINT SERVICES	To investigate emerging and state-of-the-art technologies for producing eco-coal to determine their ability to produce a renewable fuel that is suitable for use in Army Ammunition Plant boilers.	30-Jun-12
0901 INIT 155	Reducing Green House Gases at Army Ammunition Plants	SAIC	PM-JOINT SERVICES	To investigate emerging and state-of-the-art technologies for reducing GHG emissions, while decreasing costs and energy use.	30-Jun-12
0901 INIT 156	Using Green Fuels at Army Ammunition Plants	SAIC	PM-JOINT SERVICES	To investigate emerging and state-of-the-art technologies for producing green fuels to determine their ability to produce a fuel that is suitable for use in Army Ammunition Plant boilers.	20-Sep-12
0901 INIT 157	Treatment of RDX and Related Compounds in Ammunition Plant Waste Water Discharges	SAIC	PM-JOINT SERVICES	To investigate whether there are emerging and/or state-of-the-art technologies that can be used to remove RDX and related propellant and explosive compounds from munitions plant wastewaters that are also safe and cost effective. These investigations will lead to pilot scale testing of the most practical technologies and if successful, full-scale implementation at Holston AAP to remove RDX and related propellant and explosive compounds.	31-Mar-13

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
0901 INIT 320	Novel Ingredients for Propellant Applications	SAIC	ARDEC-EWMTD	1) To identify, design, and develop novel energetic insensitive materials for use in future munitions. The investigations focus on developing new class of energy yielding materials as well as high nitrogen and poly nitro groups containing energetic materials 2) To design, construct and develop a state of the art prototype kilo-lab/pilot plant facility to demonstrate the developed viable prototype process(es) to manufacture the energetic materials.	31-Jan-13
0901 INIT 323	Novel Energetic Materials	SAIC	ARDEC-EWMTD	1) To identify, design, and develop novel energetic insensitive materials for use in future munitions. The investigations focus on developing new class of energy yielding materials as well as high nitrogen and poly nitro groups containing energetic materials 2) To design, construct and develop a state of the art prototype kilo-lab/pilot plant facility to demonstrate the developed viable prototype process(es) to manufacture the energetic materials.	30-Jun-13
0901 INIT 325	Recovery and Reuse of Red Phosphorus from Obsolete Munitions	SAIC	PM-JOINT SERVICES	To identify existing demil stockpile containing Red Phosphorus in three phases. Phase I will be a proof of concept demonstration. Phase 2 will be a bench scale demonstration of separation and recovery of RP from RP formulations as well as characterization of the recovered RP. Phase 3 will include the design, build and installation of a prototype RP recovery unit for large scale demonstration of the developed process.	30-Nov-12
0901 INIT 326	Prototype Surveillance Methods for New and Existing Munitions	SAIC	ARDEC-EWMTD	To survey existing propellant assets worldwide and develop novel methods for the surveillance of new explosive and propellant formulations, process improvements in methods of analysis and updated database development as well as malfunction and deficiency investigations.	1-May-13
BRG 151	Development of Prototype Explosive Formulations for MEMs based Fuzing	SAIC	ARDEC-FUZE	To design and produce novel explosive formulations and loading technologies for novel fuze and initiating systems.	1-Jun-12
BRG 152	Prototype Explosives for Insensitive Munitions	SAIC	ARDEC-EWMTD	To design, develop and process new novel insensitive energetic ingredients as stand-alone or for IM formulations for various explosive and propellant applications, and modifying existing materials to be utilized in these formulations. Efforts include scale-up and optimization of ingredients production and research on development of new prototype instrumentation techniques to predict the sensitivity of material.	16-Aug-12
BRG 156	Prototype Environmental Technologies for the Munitions Industrial Base	SAIC	PM-JOINT SERVICES	To investigate employing emerging and state of the art technologies with regard to ongoing challenges throughout the munitions base Ammunition plants and related facilities generate substantial quantities of energetics and energetics-contaminated wastes that require disposal. While these wastes have been open burned in the past, and incinerators have been built at some sites to control combustion impacts, existing practices and new regulations require the Army to address this issue to ensure regulatory compliance.	30-Nov-11
BRG 157	Design and Development of Prototype Environmental Control Systems for Coal Fired Boilers	SAIC	PM-JOINT SERVICES	To investigate whether there are emerging and/or state-of-the-art technologies that can be used to remove RDX and related propellant and explosive compounds from munitions plant wastewaters that are also safe and cost effective. These investigations will lead to pilot scale testing of the most practical technologies and if successful, full-scale implementation at Holston AAP to remove RDX and related propellant and explosive compounds.	31-Jul-11

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
BRG 159	Development of Prototype Robotic System of Demilitarization	SAIC	PM-JOINT SERVICES	To design, fabricate and install a multifunctional MRIS at a demilitarization facility such as HWAD for the processing of projectiles.	20-Sep-11
BRG 162	Advanced Ingredients and Concepts for Novel Prototype Weapon Systems	SAIC	PM-JOINT SERVICES ARDEC-EWMTD	To design novel explosive formulations and loading technologies for new weapon systems.	20-May-12
0901 INIT 098	Pyrotechnic - Environmental and Health Hazards	SAIC SE&AT	PM-CCS	1) To identify existing environmentally unfriendly, health-hazardous, single source pyrotechnic item, compounds and materials. 1) To determine environmentally sound compounds that do not present health or safety hazards and can be manufactured economically, including multiple sources and safely utilizing the latest manufacturing techniques, then qualify the improved pyrotechnic item for production.	31-Jul-13
0901 INIT 120	ES1 High Strength Steel	SAIC SE&AT	AIR FORCE-EGLIN	To develop and implement manufacturing methods that increase the yield of warheads per lot of ES-1 High Strength Steel by 3 to 4 times, reducing steel usage, minimizing machining, and resulting in end user cost savings.	31-Mar-12
BRG 153	Improved Performance of Insensitive Countermeasure Munitions/ Nanotechnology	SAIC SE&AT	ARDEC-EWMTD	To develop improved performance and next generation of pyrotechnic countermeasures/flares and related pyrotechnics such as signals/ simulators, smokes/obscurants, visible/IR illuminants and components. This will include the development, component/hardware design, prototyping, demonstration test and evaluation, improved/new material characterization methods, and R&D equipment acquisition for the novel or improved formulations and manufacture technologies.	21-Nov-11
BRG 154	Pyrotechnics - Improved Production Technologies	SAIC SE&AT	PM-CCS	1) To identify new processes and procedures to remove environmentally unfriendly and/or health hazardous compounds from pyrotechnics by analyzing existing military pyrotechnics to identify specific compounds, designing and documenting alternative formulations, developing innovative, economical manufacturing processes, and developing a plan to transition these new manufacturing technologies to the pyrotechnic manufacturers. 2) To improve pyrotechnic manufacturing technologies by identifying those existing procedures that are unsafe and/or possess a high probability of producing unsafe and/or unreliable pyrotechnics and replacing them with advanced manufacturing technologies that economically improve safety and reliability that can then be transitioned to industry.	31-Dec-11
1001 INIT 334	Complete Design-to-Build Support for Rapid Prototyping of Grenades	SAVIT Corporation	ARDEC-MUNITIONS	The Government is redesigning the current Flash-Bang Grenade in order to create a Government owned TDP and enhance performance. The contractor shall fabricate hardware and models in support of this effort, as well as, create drawings for incorporation into the government owned TDP. This effort will also benefit rapid prototyping of current and new grenades and demolitions items and the contractor, on an as needed basis, will support redesign of government specified grenades.	30-Jun-12

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
0901 INIT 066	Long Term Effects of Non-Nuclear Energy Sources on Armament System Components and Munitions	SciTech Services, Inc.	ARDEC-FUZE	To detect and design against potential issues early on in the life cycle of armament systems. To provide support and transition assistance to the U.S. Army in the research, analysis, planning, and achievement of power and energy and sensors related initiatives relative to tactical system, operational bases and deployed mobile facilities. To investigate the potential effect of low level, long duration energy, or bursts of intense energy on the degradation of materials of interest to DOD, including armament components and energetic materials, and to suggest/develop countermeasures designed to prevent such degradation.	31-Dec-13
0901 INIT 022	Light Armored Vehicle (LAV) Fleet Upgrade Support	STG, Inc.	ARDEC-WEAPONS	To develop of LAV armor and weapon mounts upgrades and artillery/mortar weapons systems for the Indirect Fire System Division of the Weapons & Software Engineering Center (WSEC).	30-Dec-12
1101 INIT 045	Improved Supportability and Availability of Munitions & Armament Systems	STG, Inc.	ARDEC-ESIC/LRED, ARDEC WEAPONS	To develop and demonstrate improved technologies, strategies, processes, etc. that will maximize availability, while minimizing life cycle cost and logistics footprint of munitions and armament systems. The improvement of these processes and data products will increase support in meeting Logistics Support Analysis Record (LSAR) Data Requirements that may later impact the information output as a result of the implementation of the Global Combat Support System-Army (GCSS-A).	20-Jun-14
0901 INIT 029	ARDEC Manufacturing Processes and Prototype	Subsystem Technologies, Inc.	ARDEC-EWMTD TACOM-RI	1) To create an agile Manufacturing Network that will enhance understanding of the science of the manufacturing processes required to manufacture prototype components. 2) To identify key manufacturing processing techniques that allow for rapid fabrication and adjust design features to accommodate for use of such techniques.	31-Dec-11
0901 INIT 031	Digital Fire Control Systems Support	Subsystem Technologies, Inc.	ARDEC-FIRE CONTROL	To develop software to include coding, Software Document Review and Updates, Software Requirements review and generation, participation in Integrated Product Development Team (IPT) meetings, System Integration Testing and equipment support, and Technical Reviews.	30-Sep-11
0901 INIT 192	Engineering Support for 105mm M119A2 Bottom Carriage	Subsystem Technologies, Inc.	ARDEC-MUNITIONS	1) To conduct a parametric study to quantify the improvements that will make smart projectiles compatible with the M119 system. The improvements can be conducted on, but not limited to, the platform, projectile designs and propellant. 2) To develop projectile prototype metal parts for evaluation and improvement fabrication and producibility.	30-Apr-12
1101 INIT 064	Network Centric Manufacturing Process	Subsystem Technologies, Inc.	ARDEC-EWMTD	1) To refine and automate existing Network Centric Manufacturing technologies and processes to reduce costs associated with implementing them early in the product life-cycle. 2) To create an agile manufacturing network that can accept and re-use 3D products data and is configured to address dynamic manufacturing requirements. 3) To transition Network Centric Manufacturing technologies to existing systems, thereby validating associated cost, risk and schedule benefits associated with using NCM methods over traditional sourcing methods.	30-Aug-12
0901 INIT 077	Two-Point Initiation of STAR Warhead and Energetics	Tanner Research, Inc.	ARDEC-EWMTD	1) To prove the feasibility and implementability of a low-cost two-point initiation system for the STAR warhead and energetics in a reliable, micro-footprint that will not displace lethal mechanism. 2) To prove that a two-point initiation event can be demonstrated with less than 100-nanosecond simultaneity; or, demonstrated with specific timed-sequencing between discrete initiation events. 3) To demonstrate that, with proper packaging, a two-point initiation system can be made to survive gun-launch, meet 1316-compliance and be about \$100 at quantity levels.	30-Nov-11

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
BRG 168	Prototype Demonstration of Sub-millimeter Scale Micro Initiator and Train for MEMS-based S&A	Tanner Research, Inc.	PM-SOLDIER WEAPONS	To develop an ICEPS™ batch fabrication approach, based on integrating low-cost high yield PC-board fabrication techniques, to reduce cost while enhancing the overall producibility of the micro-initiator device for use in the MEMS-based S&A device.	30-Dec-11
1001 INIT 520	Artillery Projectile Enhancement Support	Technology and Management International (TAMI)	ARDEC-MUNITIONS ARDEC-FIRE CONTROL	To provide the management, subject matter expertise, technical, execution and fabrication engineering support increasing design performance capabilities of projectile systems.	20-Mar-13
1101 INIT 069	Improved Supportability and Availability of Munitions and Armament Systems	Technology and Management International (TAMI)	ARDEC-ESIC	To identify and capture opportunities in the early design phase, as well as, during system upgrades, whereby Supportability and Operational Availability (Ao) can be improved/enhanced, as a result of analyses driven by goals to reduce life-cycle costs, improve readiness and consequently provide a means for identifying, reducing and mitigating risk during the system acquisition evolution.	14-Jul-12
1001 INIT 275	Common Smart Submunition (CSS) as DPICM replacement	Textron	ARDEC-MUNITIONS	To demonstrate the Common Smart Submunition (CSS) at the TRL-6 level as part of a four year Army Technology Objective (ATO).	31-Aug-11
1101 INIT 225	Full Organic Test Program Set Support for XM-153(CROWS)	Universal Technical Resource Services, Inc.	ARDEC-FIRE CONTROL/FUZE, PM-JLW, PEO-CCS - REDSTONE	To develop Test Program Set (TPS) for the Common Remotely Operated Weapons Station (CROWS). The LRU/SRU TPS shall be developed to run on the Next Generation Automated Test System (NGATS). To document and build sets of prototype hardware. To Design & Develop Electronic Hardware, Cabling and AT Kits for CROWS.	29-Aug-12
0901 INIT 106	Research in Advanced Fuze Sensors	University of Florida	ARDEC-FUZE	1) To significantly improve the precision, reliability, safety, and multi-use flexibility of fuzing sensors over a range of potential applications, such as direct-fire, urban combat, non-lethal, foliage penetration, counter-munition active protection, etc., through the development of advanced digital fuze processing algorithms and related fuze sensor techniques. 2) To use sophisticated modeling, computer analysis, FPGA implementation, and lab hardware testing to complete a digital fuze processor design for Mortar and guided 105mm Ammunition systems, design of processing solutions to specific fuzing problems, completed implementation and testing of fuzing algorithms, completion of simulation software modifications for improved speed and modeling, and design of new hardware simulation system concepts.	30-Apr-13
1001 INIT 003	Adv Protos Gun-launched Ext Munitions Utilizing Manned-Unmanned Projectiles	University of Hartford	ARDEC-MUNITIONS	1) To design a gun-launched munition that utilizes advanced systems and technologies developed by the University of Hartford. 2) To conduct bench scale testing, design, and optimization, and evaluate new actuation systems and assist in the demonstration of various gun-launched projectiles.	30-Jun-13

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Number	Title	Prime	Sponsor	Objective(s)	Performance End Date
1001 INIT 154	Defense net "D-Net" Protection System Technology	Victory Solutions, Inc.	AMRDEC	Further develop the D-Net technology based on Phase I R&D Tests. A central objective of Phase II will be to develop the D-Net to a Technology Readiness Level (TRL) worthy of deploying a limited quantity of "Field Prototypes" to theatre for field operations tests and evaluation. Phase II Field Tests will analyze RPG, rocket threats and tactics in relation to ground vehicles. Operational assessment for vehicles will be developed. Range tests will be conducted, analyzed, and range data will be imported into models and simulations to be assessed, and further analysis will be conducted from assessments. The final step of this phase will be the vehicle integration for field operations and will include the requirements for the system by type of platform.	31-Jan-13
1001 INIT 529	Hybrid Projectiles	West Virginia University	ARDEC-MUNITIONS	1) To design and test next generation hybrid projectiles of 60 mm and 40mm caliber that have the capability to defeat standard targets or transform into an unmanned aerial vehicle (UAV), and be visually guided to targets utilizing a man-in-the-loop. 2) To study glider designs as well as various propulsion technologies used for the hybrid projectiles.	31-Dec-12
0901 INIT 166	Hybrid Projectiles	West Virginia University Research Corporation	ARDEC-MUNITIONS	To design and test hybrid projectiles of 40 mm and 60 mm caliber that will have the capability to defeat standard targets or transform into an unmanned aerial vehicle (UAV), and be visually guided to targets.	31-Dec-11
1101 INIT 044	Hybrid Projectiles	West Virginia University Research Corporation	ARDEC-MUNITIONS	To design and develop with the US Army ARDEC hybrid-projectiles, and conduct a power and energy assessment of state-of-the-art internal combustion engine technologies. These projectiles are a new class of unmanned aerial vehicles (UAV)/micro-aerial vehicles (MAV), which will incorporate next generation technologies, and that can be launched by soldiers using ballistic energy from existing gun systems. The unique low-cost projectiles of various calibers ranging from 40 mm – 150 mm will have the capability to look and behave like standard ammunition or transform into a UAV that can operate autonomously, or be visually guided to the target.	28-Feb-13