Fiscal Year 2010
Defense

Name of Project	Project Funding Recipient	Project Purpose and Requested Amount	Location	Interest for the Taxpayer
ACES 5 Ejection Seat	Goodrich Corporation	These funds would complete the qualification testing necessary to provide the Air Force the ACES 5 ejection seat which is the modular and improved version of the ACES ejection seat that is the common seat currently found on almost every Air Force combat aircraft. The ACES 5 includes an advanced and improved parachute designed to keep pilots safer in the event of an ejection. ($7,000,000)	Colorado Springs, CO; Columbia, MS	To improve performance of life-saving ejection seats and dramatically reduce associated maintenance costs
Advanced Cavitation Power Technology	AFTEC/Impulse Devices, Inc.	Enables production of high-density, industrial scale thermal energy using high static pressure acoustic cavitation devices able to provide energy in megawatt range from an inexpensive, non-polluting, stand-alone, and relatively silent source. ($8,420,000)	Grass Valley, CA; University, MS	To develop a breakthrough energy source that could result in cost and environmental benefits
Advanced Integrated Microsystems for Military Electronic Systems	Camgian Microsystems Corporation	The program will support the development of new, microelectronics technologies that will enable significant improvements in the size, weight and power consumption of existing military electronic sensing and communications systems. ($5,000,000)	Starkville, MS	To improve the cost efficiency and effectiveness of specific military systems
Advanced Materials Design for Nano Devices	Mississippi State University	This project would support development of unique and innovative materials and magnetic memory elements for high-density nanoscale memory devices and nanosensors for chemical warfare agents in support of Army Research Lab's Sensor and Electron Devices Directorate. ($2,230,000)	Starkville, MS	To support transformative research leading to very small sized, very large capacity memory devices
Advanced Soldier-Portable Power Systems Technologies	Ultralife Corporation	Developing a hybrid battery fuel cell power source reduces a soldier's battery burden. As the incremental weight of batteries continues to grow, mission effectiveness decreases. These systems will enable lighter power supplies and longer mission times. ($4,800,000)	West Point, MS; College Station, TX	To reduce weight of warfighter equipment and reduce military fuel consumption
Advanced, Long Endurance Unattended Ground Sensor Technologies	Mississippi State University	This project would support research and development of advanced, low power unattended ground sensor technologies that will provide the special operations warfighter with total, reliable and up-to-the minute situational awareness. ($8,000,000)	Starkville, MS	To improve safety and security of deployed military forces by increasing operational awareness
Aircraft Active Corrosion Protection Compounds	Rite-Kem Incorporated	This project continues development of a breakthrough anti-corrosion compound that has shown great promise in testing. With the costs of corrosion estimated by GAO annually in the $10B to $20B range, any breakthrough in this space could represent substantial savings to the taxpayer. ($2,000,000)	Tupelo, MS; Starkville, MS	To provide substantial cost savings through advanced corrosion control

Aircraft Carrier Composite Topside Structure	Alion Science & Technology	This effort will develop and validate a full-scale composite aircraft carrier topside structure with integrated ballistic protection, providing a lightweight fragmentation/structural/fire integrated technology solution that can meet/exceed current performance requirements while reducing cost. ($6,500,000)	Pascagoula, MS	To provide greater payload and performance capability for existing aircraft carrier designs
AIT for Navy Supply Systems	WCS Industries	This effort would support the Navy in conducting site surveys, implementing RFID solutions, training the user base, offering a call center for dedicated support, and providing on-site technical support to users. ($5,000,000)	Ridgeland, MS	To improve military operational efficiency and reduce logistics costs
Amphibious Robot Kit (ARK)	EBICS Technologies, LLC	This phase of the program will integrate a video surveillance system into the Amphibious Robot Kit (ARK) platform with vision capability in day or night environments, develop additional control and situational awareness sensors within the ARK platform, and enable the ARK to autonomously recognize terrain differences between land and sea and navigate accordingly. ($6,000,000)	Gulfport, MS	To keep warfighters out of harm's way and improve military effectiveness
ANG/USAF F-16 CPCD & AESA Radar	Raytheon Company	ANG F-16 aircraft require a new Center Panel Color Display (CPCD) to send and receive imagery, improve available processing power, and replace aging flight instruments. This project would integrate advanced Active Electronically-Scanned Array radars with CPCD for F-16. ($4,700,000)	El Segundo, CA	To improve performance of Air National Guard aircraft and decrease operations and maintenance costs
Antigen Presenting Cell (APC) Biosensor Program	Jackson State University	The Antigen Presenting Cell (APC) Biosensor Program aims to overcome the diagnostic dilemma of physicians and government agencies nationwide in rapidly determining the presence of disease prior to the onset of illness. ($5,500,000)	Jackson, MS	To provide a capability to much more rapidly and accurately identify harmful pathogens
Army Center of Excellence in Acoustics	University of Mississippi	Funding would support development of acoustic sensor systems for aerostats and unmanned aerial vehicle platforms for various targeting, detection/tracking, and collision avoidance scenarios. ($4,200,000)	University, MS; Picatinny, NJ	To improve the performance of military unmanned aerial systems
Army Range Technology Program (ARTP)	Mississippi State University	This program builds on the results of a three-year collaboration -- among Mississippi State University, the Army Corps of Engineers (Vicksburg), and Picatinny Arsenal -- developing a capability to effectively locate, remove, and/or contain depleted uranium and other metals of concern. ($8,000,000)	Starkville, MS; Vicksburg, MS; Picatinny, NJ	To provide capability to remove environmentally dangerous depleted uranium from military test ranges
Army Responsive Tactical Space (ARTS)	Miltec Corporation	This project develops technology and infrastructure to provide near term Operationally Responsive Space (ORS) capability. The US must be able to deploy space based assets in a responsive manner so that critical space-dependent capabilities are available to warfighters as continuously as possible. ($8,500,000)	Iuka, MS; Huntsville, AL	To ensure continued access to space-based technology and services

Arrow Weapons System	Israel Aircraft Industries (IAI)	The Arrow anti-tactical ballistic missile program is the centerpiece of the US-Israel cooperative defense relationship, and provides the US with key research and technology for other theater missile defense programs. ($46,000,000)	Huntsville, AL; Iuka, MS	To provide the US and Israel with a ballistic missile defense capability
Automated Picoliter DNA Analysis for Biologic Detection and Diagnostics	QuantaLife Incorporated	This program will provide the Department of Defense with a critically needed capability -- an ultra-rapid biologic detection and diagnostic system which is portable, highly accurate, and cost effective. The availability of an affordable, high-speed biologic detection and diagnostic system will reduce the danger of a chemical and/or biological (CB) attack and will enable US forces to survive and continue operations in a CB environment. ($11,450,000)	Tupelo, MS	To provide the capability to quickly and accurately detect and diagnose harmful agents
Base Pressure and Thermal Analysis Tool for Optimized Missile Design	University of Mississippi	This project addresses a critical deficiency in the tools used to support the design of next-generation interceptor missile systems, as well as new launch systems envisioned by NASA. Will demonstrate turbulence model improvements for more accurate estimation of heating loads, supporting cost and weight reductions for thermal shields. ($2,000,000)	University, MS	To reduce costs and improve performance of military missile systems
Blast and Impact Resistant Composite Structures for Navy Ships	University of Mississippi	Funding would support modeling, analysis, fabrication, and testing of blast/shock/impact resistant composite structures for the next generation of Navy ships, to achieve better mobility, survivability, stealth, safety, and reduced life cycle costs. ($3,000,000)	University, MS	To improve performance and reduce maintenance costs of advanced materials for US Navy ships
Build a Resource Globe to Balance the Energy / Water / Waste Equation	Mississippi State University	This initiative will leverage advancements in visualization science, sensor integration, data collection, communication networks, and high performance computing to develop a global model that will support accurate and timely DoD policy, technology application, and infrastructure project decisions for energy, water, and waste processing. ($18,750,000)	Oak Ridge, TN; Starkville, MS; Honolulu, HI	To conserve resources by informing better DoD energy, water, and waste management decisions
Center for Intelligence and Security Studies	University of Mississippi	This program will improve developmental educational opportunities for more well-prepared future intelligence analysts. Includes instruction in analysis, reporting, and communication; facilitation of security clearances; and support in securing Intelligence Community internships. ($2,447,729)	University, MS	To improve the capability and quality of future intelligence analysts
Chemical Materials and Environmental Modeling Project	Jackson State University	This initiative will establish a collaborative, multi-disciplined and integrated research and education strategy focusing on biomolecular and computational studies of nerve agents and structurally-related compounds. ($3,500,000)	Jackson, MS	To improve detection, protection, and treatment of highly dangerous substances
Composite Air Cushioned Vehicle (CACV) Demonstrator	Northrop Grumman Corporation	To meet increased carrying requirements, the SSC (LCAC replacement) must be lighter. Current designs assume heavier materials. This project will prove the technology readiness level of composites is >6, thus allowing use of this lighter material. ($10,500,000)	Gulfport, MS	To achieve operational requirements and reduce operational costs associated with advanced military vehicles

Composite Mast for CVNs	Northrop Grumman Corporation	An optimized CVN composite mast will reduce weight over a comparable steel design, reduce acquisition cost compared to the CVN 77 design, increase service life margin, and significantly reduce life-cycle costs due to reduced maintenance requirements. ($3,400,000)	Gulfport, MS; Starkville, MS; Hattiesburg, MS	To provide greater performance capability and reduce maintenance costs for existing aircraft carrier designs
Composite Materials Enhancements through Polymer Science R&D	University of Southern Mississippi	This project would provide critical research for composite matrix materials specific to the Navy's needs, and advance the utility of polymeric materials for US Navy composites. ($8,000,000)	Hattiesburg, MS	To make US Navy vessels more capable and more fuel efficient
Conducting Polymer Stress and Polymer Damage Sensors for Composites	Crosslink	New generations of manned and unmanned aircraft are being built with ever larger amounts of composites in primary structures, thus creating a need for continuous real-time structural health monitoring and damage assessment systems to prevent the potential for catastrophic failures. ($7,000,000)	Hattiesburg, MS	To reduce maintenance costs and improve reliability of composite structures
Cooperative International Neuromuscular Research Group (CINRG)	Children's National Medical Center	The goals of the CINRG program are to expand muscular and motor neuron research in order to protect service members by combating biotoxins and biological warfare, as well as to find cures for muscular diseases such as muscular dystrophy, the number one genetic killer of children. ($5,000,000)	Washington, DC	To develop breakthrough treatments for diseases such as muscular dystrophy
Corrosion Control, Prevention, and Prediction through Polymer R&D	University of Southern Mississippi	Funding would support a DoD-initiated pilot program among four universities, focused on understanding and reducing the premature failure of military assets via corrosion. Overall goal is to develop adequate screening protocols for the early detection and characterization of corrosion failure. ($14,000,000)	Hattiesburg, MS	To provide substantial cost savings through advanced corrosion control
Countermine LIDAR UAV-Based System (CLUBS)	Optech International, Inc.	CLUBS employs novel data fusion algorithms to produce seafloor classification images for use in anti-mine warfare applications and contributes to 4 focus areas of the Office of Naval Research's Science and Technology Strategic Plan. ($2,600,000)	Kiln, MS	To improve the security of US Navy ships and submarines by improving mine detection
Critical Infrastructure Protection	University of Mississippi	Funds are requested to establish an industrial/university/governmental consortium to address critical parameters, issues, and challenges in the nation's critical infrastructure. Will address aging, natural disaster, and survivability, utilizing high performance, low cost, advanced materials and computational tools. ($4,000,000)	University, MS	To ensure the stability and availability of critical infrastructure systems
DDG-51 Hybrid Drive System	General Atomics	Develop a low speed Hybrid Drive propulsion alternative system for DDG-51 class of ships using advanced motor technologies and power electronics. This system will allow DDG-51 ships to operate without utilizing the main turbines at inefficient speeds, thereby saving thousands of gallons of fuel per ship per year. ($9,000,000)	Shannon, MS	To dramatically improve the fuel efficiency of naval ships

Defense Technology and Mission Critical Employment Initiative	The Thurgood Marshall College Fund	This program provides the next generation of critically needed scientific, technology, engineering, and education leaders essential to meet defense and national security needs. It will also ensure that the US military has a pool of well trained minority leaders through the largest contingency of ROTC programs in the country. ($4,000,000)	New York, NY	To improve educational development opportunities for minority students
Development of Drugs for Malaria and Leishmaniasis	University of Mississippi	Funding will support the identification of safe and effective alternatives to mefloquine for malaria prophylaxis and treatment in US military and civilian personnel. Development of new analogs and combinations can save lives by treatment and prevention of infections and reduce the side effects of such treatments. ($3,400,000)	University, MS; Silver Spring, MD	To improve prevention and treatment of malaria for US troops stationed around the world
Eagle Eyes - Transition to Application	University of Southern Mississippi	This project would address urgent needs for extended range detection of radioactive and nuclear materials. Novel collection optics will be integrated with advanced optical filter technology recently demonstrated by the research team, greatly extending detection range over state-of-the-art commercial capabilities. ($3,600,000)	Hattiesburg, MS	To provide advanced capability to detect radioactive materials at long distances
Enhanced Simulation for Information Operations Capabilities	Circadence Corporation	Enhanced Simulation for Information Operations Capabilities will provide a software architecture that can bring network management to the Information Operations Range and VisIOn initiatives, saving considerable time and money by eliminating rewrites of existing simulations and filtering of critical data. ($15,000,000)	Tupelo, MS	To improve cost efficiencies associated with evaluating information operations capabilities and vulnerabilities
Ensuring Privacy, Accuracy and Security for Military and Overseas Voters	Everyone Counts, Inc.	The US Elections Assistance Commission reports that 70% of military and overseas voters that try to vote do not have their votes counted. Funding this project will ensure that every American serving or living abroad that is eligible to vote has their vote counted, and those voters are allowed the same security, privacy and accuracy that voters living on US soil have. ($8,900,000)	Voluntarily Participating States	To improve the security, privacy, and accuracy of votes cast by overseas voters
Extremely Large, Domestic Expendable and Reusable Structures	ATK Mission Systems	To scale-up domestic composites manufacturing/processing capacity, including evaluation, modification, qualification & acquisition of automated production equipment & facilities, all to meet emerging & critical military space access requirements. ($12,000,000)	Iuka, MS	To improve cost efficiency of technical performance of specific military systems
F/A-18E/F APG-73 Upgrade	Raytheon Company	This funding would upgrade F/A-18E/F Lot 21-25 aircraft with AESA antenna. Lot 21-25 aircraft are not configured with the power and cooling system to allow for AESA retrofitting. This program upgrades the aircraft to AESA configuration without major modifications. ($5,000,000)	Forest, MS; El Segundo, CA	To improve performance and decrease operations and maintenance costs of Navy aircraft
F-15C AESA Classified Demo	Raytheon Company	This is the final year of a three-year development effort to demonstrate the APG-63(V)3 Active Electronically Scanned Array (AESA) with a Radar Common Data Link (RCDL). This effort will mature critical technology required to improve mission effectiveness and survivability against emerging threats. ($12,000,000)	Forest, MS; El Segundo, CA	To ensure continued effectiveness against potential adversaries and to decrease operations and maintenance costs

F-15C AESA for Air National Guard	Raytheon Company	This funding would upgrade radars on Air National Guard F-15Cs from a mechanically scanned array to a more capable Active Electronically Scanned Array (AESA). The requested funding will maintain production efficiencies and avoid a production gap that would increase the total program cost. ($62,400,000)	Forest, MS; El Segundo, CA	To improve performance of Air National Guard aircraft and decrease operations and maintenance costs
Field Portable Analytical Equipment	Seacoast Science	These funds will complete development and testing on a field portable environmental testing system providing the capability to determine chemical concentrations in a field sample without waiting for analytical laboratory results. ($3,000,000)	Starkville, MS	To provide a rapid and accurate capability for detecting harmful chemical agents
Fighter Jet Noise Reduction Under Carrier Deck Operational Environment	University of Mississippi	Funding would support continued wind-tunnel testing of corrugated seal retrofits, which have demonstrated a significant jet engine noise reduction without loss of aero performance. Would also support flight test on an F/A-18 E/F, to further assess the technology solution. ($5,300,000)	University, MS; Jackson, MS	To reduce hearing loss injuries to military members and decrease "noise pollution" around military airfields
Gulf Coast Regional Pathology Demonstration	AF Medical Services IT System at Keesler AFB	Funding would help build a multi-specialty tele-consultation system to provide widely available, flexible, clinically relevant services across multiple medical specialties thru a Gulf Coast regional demonstration network including Keesler AFB, Forrest General Hospital System, and the University of Southern Mississippi. ($3,750,000)	Biloxi, MS; Hattiesburg, MS	To help make military healthcare more effective, responsive, and cost efficient
HBCU Applied Research Incubator	Jackson State University	This initiative will provide applied research products required by the Department of the Navy (within their existing Advanced Processor Build development framework), and promote the growth and development of HBCUs. ($9,500,000)	Jackson, MS; Fairfax, VA	To improve research and development support of specific Navy systems
HERON Maritime UAS for SOUTHCOM	Stark Aerospace, Inc.	HERON is a mature, multi-role UAS that provides robust and proven maritime capabilities with the ability to perform missions at high and low altitudes by relaying wide area, real-time recon and target acquisition, detection and ID information back to ground control and mission monitoring. ($15,000,000)	Starkville, MS; Columbus, MS	To provide improved surveillance and reconnaissance capabilities for counter-drug and counter-terrorism missions
High Performance Computational Design of Novel Materials	Jackson State University	This initiative will implement studies of novel materials that represent the potential for applications as sensors, coatings and electronic elements and lead to better understanding of chemical reactivity, structures and properties of new materials, and their possible environmental impact. ($4,000,000)	Jackson, MS	To expand understanding of the properties of novel materials based on DNA and other biomolecules
High Performance Polymers for Weapons and Munitions Technology	University of Southern Mississippi	This project would develop lightweight, high-performance composites, very low-friction surfaces, corrosion reduction and energetic polymers to advance mission critical performance for the warfighter. ($4,300,000)	Hattiesburg, MS; Picatinny, NJ	To provide substantial cost savings through advanced material development

High Power Computing Capability for Traumatic Brain Injury Research	Diversified Technology	The advancement in both neuroscience and cognitive science in recent years allowed for better understanding of the mechanisms responsible for traumatic brain injury. The basic objective of this program will be to meld the applied cognitive application and neuroscience program to form a combination of biological, behavioral, and computational approaches for evaluating biological and artificial information processing systems in traumatic brain injury. ($6,000,000)	Ridgeland, MS	To provide breakthrough insights for more effective treatment of traumatic brain injury
High Speed Aerial Target Development	Applied Geo Technologies, Inc	A project to develop the domestic capability to manufacture catapult launchers for Mobile Subsonic Aerial Targets (MSATs) will potentially save the government money on initial purchase and provide additional long-term savings through logistical convenience. Additionally, this product would be designed, developed, and produced in the US creating jobs for our citizens. ($2,000,000)	Choctaw, MS	To provide cost savings through economies of scale and logistics improvements
High Temp Polymers for Missile System Applications	University of Southern Mississippi	High temperature polymers are required for next generation missile systems applications. Special materials with increased stiffness, decreased weight, and primarily higher thermal loads are needed to replace the high cost of titanium or aluminum products. ($5,500,000)	Hattiesburg, MS	To improve durability and reduce costs of materials used in military missile systems
Information Assurance / Web Assured Response Protocol (WARP)	Circadence Corporation	This project would provide SPAWAR Systems Center Charleston WARP-unique software test and technical support, including interoperability testing and bandwidth management products as well as automation of the System Integration Lab in order to enable rapid installation, configuration, data collection and analysis for current and future test scenarios. ($5,000,000)	Tupelo, MS	To improve network processing capabilities and information security
Integrated Composite Armor for Riverine Craft	Seemann Composites, Inc.	Crew protection and vessel survivability are at the forefront of critical challenges facing Naval Operations. This funding will lead to development of lighter weight armor solutions for small high-speed craft, allowing increased mission capability and crew protection. ($2,000,000)	Gulfport, MS	To improve the performance of US Navy special operations craft and the safety of the military members operating them
Integrated Rugged Checkpoint Container (IRCC)	Rapiscan Systems, Inc.	The IRCC supplies the warfighter with a ruggedized suite of person, parcel and vehicle borne threat detection systems which fill a capability gap not currently addressed, by providing our forces an integrated mobile checkpoint for unimproved terrain. ($2,500,000)	Ocean Springs, MS	To improve the security of military operations overseas by providing advanced threat detection capability
Jet Blast-Resistant Composite Radomes	Northrop Grumman Corporation	The Joint Strike Fighter (JSF) Vertical Takeoff and Landing (VTOL) configuration will operate from LHA 6. Its exhaust temperatures will reach 1800F. This project will mitigate operational risks associated with JSF exhaust temperatures, ensuring topside shipboard elements, including antennas, are protected. ($5,100,000)	Gulfport, MS; Newport News, VA	To improve the durability and reduce maintenance costs of structures subjected to high temperatures
Land Based Test Facility	Northrop Grumman Corporation	Today's ships are increasingly complex, and feature integrated networks that carry data from a wide range of shipboard systems. Land Based Testing would provide a pre-installation capability to simulate and test these systems, reducing major program risks. ($20,000,000)	Pascagoula, MS	To improve effectiveness, timeliness, and efficiency in naval ship-building operations

Laser-Guided Energy (LGE) Demonstrator	Applied Energetics, Inc.	To develop a Laser Guided Energy (LGE) demonstrator mounted on an Army tactical vehicle capable of firing to tactical ranges. Funding the development of this transformational technology will expedite fielding of this capability to save the lives of US military personnel who must operate against asymmetric threats, and to reduce non-combatant injuries and collateral damage in future urban conflicts. ($5,000,000)	Tucson, AZ	To provide greater safety to warfighter while allowing more specificity on target impact
Lightweight Small Caliber Ammunition Production Initiative	MAC LCC	Lightweight polymer-cased ammunition produced by MAC LLC has been demonstrated to reduce the weight of the fully-loaded cartridge by over 25%. As a result of this project, the Marine Corps will have a qualified domestic source of lightweight polymer-cased .50 caliber ammunition. ($4,500,000)	Bay St Louis, MS	To improve combat effectiveness and military vehicle fuel efficiency by dramatically reducing ammunition weight
Long Term Pain and Infection Management for Combat Casualty Care	Ablitech, Inc.	This project will provide advanced treatment and Long Term Pain and Infection Management of Combat Casualty Care for the warfighter. Funding will build upon current research and development in conjunction with the University of Southern Mississippi. ($3,000,000)	Hattiesburg, MS	To provide improved medical care to the warfighter
Mission Critical Power System Reliability Surveys	Eaton Corporation	This program will perform risk assessments of redundant power and related mission critical infrastructure systems to identify system and equipment component weaknesses that may result in breach of operations, security, and other threats. Results and recommendations will serve as a basis to implement corrective actions needed to support mission critical operations for the war fighter. ($2,000,000)	DoD Worldwide	To improve reliability and energy efficiency of systems supporting mission critical operations
Mobile Acoustic Ranging and Tracking (MAcRAT)	Radiance Technologies, Inc.	This program will develop a compact, lightweight, cost effective, on-the-move sniper detection system that is easily deployable on existing military assets to provide a very high degree of security for in-country convoys. ($4,100,000)	Oxford, MS	To improve security for military ground vehicles operating under threat of sniper fire
Modeling and Analysis of the Response of Structures (MARS)	ES3, Inc.	MARS is providing ERDC with advanced computational methods specifically designed to support DoD's requirements in assessing vulnerabilities of critical US assets (buildings and vehicles) to enemy threats (IEDs, mines, and bombs). ($2,000,000)	Vicksburg, MS; San Diego, CA	To better protect our troops overseas from the dangers of Improvised Explosive Devices
Mold-In-Place (MIP) Coating Development for the US Submarine Fleet	Seemann Composites, Inc.	This request will provide additional funding to complete the development of MIP coatings for low cost submarine components built by Seemann Composites for the Virginia Class and other US Navy Submarines. ($2,000,000)	Gulfport, MS	To improve the performance, durability, and cost effectiveness of US Navy submarine components
MQ-5B Hunter Tactical Unmanned Aircraft System (UAS)	Stark Aerospace, Inc.	The MQ-5B Hunter UAS provide Army Warfighters with real-time Reconnaissance, Surveillance, and Target Acquisition and Strike capabilities employing the Viper Strike munition. This request would help ensure sufficient assets remain available to support the Army's ISR requirements and mandated upgrade to the new Tactical Common Data Link system. ($8,000,000)	Starkville, MS	To ensure continued availability of systems that improve military effectiveness and troop security

MQ-8B Fire Scout Army	Northrop Grumman Corporation	Fire Scout provides persistent over the horizon, tactical reconnaissance, surveillance and target acquisition, communications relay, emitter tracking, and logistical support to warfighters while keeping Soldiers out of harm's way. If not funded, warfighters who could benefit from additional UAV support will wait additional years for this critical capability that is available today. ($14,900,000)	Moss Point, MS	To increase the effectiveness and security of military members by providing improved situational awareness
National Guard Wideband Imagery Dissemination System (WIDS)	Rockwell Collins	WIDS is an imagery intelligence dissemination system that enables the National Guard to receive national-level imagery in near-real time for civil support operations and wartime deployments. Funding will upgrade current WIDS systems to new DoD Wideband Global Systems specifications. ($12,000,000)	Stennis Space Center, MS	To improve National Guard capabilities to effectively support disaster relief operations in the US as well as combat operations overseas
Next Generation Passive Sensor (NGPS)	Miltec Corporation	This work develops/enhances acoustic sensor systems and capabilities for use in providing increased amounts of strategic information to the warfighter in the battlefield allowing detection, classification and tracking of objects of interest or threats. ($4,000,000)	Oxford, MS	To improve safety and security of deployed military forces by increasing operational awareness
Nitrile Rubber Collapsible Fuel Bladders	Avon Engineered Fabrications, Inc.	Nitrile Rubber fuel bladders alleviates failure risk and plays a critical role in receiving store transfer and dispensing fuel and liquid bulk in support of the Marine Air Ground Task Force (MAGTF) in current combat operations in Iraq and Afghanistan. ($3,200,000)	Picayune, MS	To better support US Marine Corps combat operations in Iraq and Afghanistan
On-Board Hybrid Power Unit (OBHPU)	Diversified Technology	This funding would help provide a light weight, safe, robust, cost effective fuel cell power source, the On-Board Hybrid Power Unit (OBHPU), transportable by military ground vehicles. ($1,500,000)	Ridgeland, MS; Auburn, AL	To help reduce the size and weight of power generation gear required by forward-operating military units
Online Health Services Optimization	BearingPoint	The Online Health Services Optimization initiative will create a new persistent and redundant electronic copy of medical records, ensuring access to the historical medical records of our military beneficiaries, increasing continuity of care, and saving the lives of our warfighters, veterans, and their families. ($6,000,000)	Hattiesburg, MS	To increase effectiveness and efficiencies in military medical operations
Orion HALE UAV Risk Reduction Effort	Aurora Flight Sciences	Orion HALE UAV (Risk Reduction Effort) will meet urgent national requirements for persistent intelligence, surveillance and reconnaissance, beyond line of sight communications, and assist in further development of key technologies needed for long-term operations in near space. ($9,720,000)	Columbus, MS	To increase military intelligence, surveillance, and reconnaissance capabilities
Patient Care Improvement Project at Keesler Medical Center	Shipcom Wireless, Inc.	The goal of this project is to improve patient care for Air Force personnel across the country by developing reliable radio frequency identification (RFID) systems that will reduce medication errors, make medical equipment more reliably available, improve patient flow through medical centers, and increase efficiency. ($4,800,000)	Biloxi, MS; Hattiesburg, MS	To improve patient care and provide cost savings military medical centers

Performance and Injury Prevention Program for SBT-22	University of Pittsburgh School of Health and Rehabilitation Sciences	Building off of the success of the existing Injury Prevention and Performance Enhancement initiative with SEAL Team 2 at Little Creek, VA, the University of Pittsburgh will establish the Special Boat Team Human Performance and Injury Prevention Laboratory at Stennis Space Center to support SBT-22. ($2,850,000)	Stennis Space Center, MS	To improve the physical preparedness of military members and reduce costs associated with injuries
POSS Nanotechnology Engineering Scale-Up Initiative	Hybrid Plastics, Inc.	The proposed effort is the final step in an ongoing Title III program aimed at creating a domestic supply of qualified POSS materials for military and civilian applications. The US will benefit greatly from the creation of a domestic production capability of POSS materials. The DoD will be able to realize greater performance, reliability, and safety from the adoption and implementation of POSS nanotech enhanced materials. ($6,000,000)	Hattiesburg, MS	To realize greater performance, reliability, and safety through the adoption of enhanced materials
Production of High Energy Density, "Green" Fuel for Fuel Cells	Ardica Technologies	There is a need for high energy density, environmentally friendly fuel for soldier power systems (higher energy density provides electric power for a given mission time while carrying less weight). ($5,300,000)	San Francisco, CA; Starkville, MS	To reduce weight of warfighter equipment and reduce military fossil fuel consumption
Propulsion Manufacturing Technology Development	UCT Defense, LLC	This effort facilitates a simultaneous, multi-discipline design, testing, and development process for the exploitation of NiB coatings in large-scale naval propulsion equipment applications, providing improved operations, improved fuel efficiency, and reduced life-cycle costs. ($6,880,000)	Pascagoula, MS; Stuart, FL	To improve fuel efficiency and reduce operating costs of US Navy vessels
Raven B Camera-on-a-Chip	DRS Technologies	Develop ultra low power, size, and weight uncooled Electro-Optic Infrared (EO-IR) camera-on-chip architecture using advanced Application Specific Integrated Circuits design to reduce the payload weight by 50%, and installation of an IR sensor with twice the optical resolution. ($5,000,000)	Starkville, MS	To improve intelligence, surveillance, and reconnaissance capabilities by reducing camera size, weight, and power requirements
RC-26B Modernization	ATK Mission Systems	The RC-26B performs critical intelligence, surveillance and reconnaissance missions in support of national disaster response by the Air National Guard, border protection and immigration control, and deployed special operations forces. Without sufficient funding to continue upgrades to the RC-26B fleet, the ability of the ANG to respond to future counter-drug and disaster relief missions, as well as DOD intelligence, surveillance, and reconnaissance missions, will be impaired. ($9,130,000)	Fort Worth, TX	To provide improved capability for counter-drug and disaster relief missions as well as warfighting missions overseas
Reactive Skin Decontamination Lotion (RSDL)	Bracco Diagnostics, Inc.	Manufacture the new, FDA-approved, SAFETY Act Certified, DoD/Joint Service Chemical Warfare Decontaminant -- Reactive Skin Decontamination Lotion -- to replace the existing outdated Absorbent M-291 and reduce the Services' existing unfunded requirements. ($5,900,000)	Princeton, NJ	To dramatically improve our service members' preparedness in the face of potential chemical attack
Regional Counterdrug Training Academy	Regional Counterdrug Training Academy (RCTA)	The mission of the RCTA, at the Naval Air Station in Meridian, Mississippi, is to develop and provide the highest quality drug law enforcement training to state and local law enforcement officers at no cost to the officer or their agencies. The RCTA intends to train 5,500 students in FY 2010. ($3,000,000)	Meridian, MS	To provide highly effective training for state and local drug law enforcement personnel

Scalable, Modular, Autonomous, Robotic Technology (SMART) LRU	Applied Geo Technologies, Inc	SMART Line-Replaceable Units (LRUs) will provide modular "brains" for air/ground unmanned systems (UMS). Scaled to task or budget, they will improve operational efficiency, reduce operator workload, enhance situational awareness, extend range, and support UMS interoperability at less cost than other systems currently under development. ($3,000,000)	Choctaw, MS; Huntsville, AL	To increase cost efficiency of specific military systems, and to reduce the need for human involvement in dangerous or costly operations
Semi-Active Laser Mortar Maturation	Israel Military Industries (IMI)	The requested funding would allow design and development of a size and weight appropriate Semi-Active Laser Mortar, fulfilling a joint urgent operational need for a precision indirect fire solution. ($7,500,000)	Tucson, AZ	To improve military effectiveness and decrease potential collateral damage
Sentinel AESA	Raytheon Company	The counter battery detection range of ETRAC Sentinel is lower than desirable to counter existing and future rocket, artillery, and mortar threats. Additional FY10 funding will incorporate AESA technology into Sentinel to further upgrade capability. ($5,000,000)	Fullerton, CA; Sudbury, MA	To improve effectiveness of radars used for military operations overseas as well as critical airspace protection missions in the US
Sewage-Derived Biofuels Project	General Atomics	The overall objective of this 3-phase program is to demonstrate the feasibility of large-scale biofuels production from military and municipal wastewater treatment facilities using a combination of algae and microorganisms found in sewage. As a follow-on to Phase I, Phase II will demonstrate the viability of large-scale production of sewage-derived distillate fuels from military and municipal wastewater treatment facilities. ($5,000,000)	Starkville, MS	To develop an economical and environmentally-friendly alternative fuel source
Short Range Ballistic Missile Defense (SRBMD)	Rafael Advanced Defense Systems	The David's Sling System, jointly developed by the US and Israel, is planned to provide both Israel and the US with an effective and affordable protection against the proven threat of Long Range Artillery Rockets & Short Range Ballistic Missiles. ($45,000,000)	Tucson, AZ; Iuka, MS	To defend the US and Israel against ballistic missiles
Silicon Carbide Electronics Material Producibility Initiative	II-VI Wide Band Gap Materials Group	Develop domestic second source of Silicon Carbide based materials and devices, required for highly energy efficient, high frequency and high power systems for critical military platforms and commercial applications. The materials and device development afforded by this program will enable significant reductions in the size, weight and energy usage of a vast number of military platforms. ($9,000,000)	Starkville, MS; Pine Brook, NJ	To facilitate dramatic increases in energy efficiency and decreases in size, weight, and energy usage of military platforms
Silicon Carbide Power Electronics for More Electric Aircraft	SemiSouth Laboratories, Inc.	Silicon Carbide (SiC) power electronics technology will reduce weight and cost in critical More-Electric-Aircraft systems. Project will ensure early maturation of SiC technology for timely integration and technology readiness level demonstrations of critical systems for F-35. ($10,000,000)	Starkville, MS	To provide substantial cost savings in the development and operations of future aerial systems
Simulation Based Reliability and Safety (SimBRS) Program	Mississippi State University	SimBRS provides a formal relationship with other universities and corporate entities to engage in synergized research to develop experimentally validated cradle-to-grave modeling and simulation capabilities to optimize reliability in vehicular components and systems. ($10,000,000)	Starkville, MS	To improve performance and survivability of military systems through efficient simulation analysis

Single Platform Initiative for Efficient Energy	Mississippi State University	This program, a partnership comprising the Army, Mississippi State University, and private industry, aims to integrate components of a comprehensive energy-efficiency program to enable DoD to demonstrate the environmental, economic, and operational benefits gained by fundamentally changing the way energy is managed by military installations. ($8,000,000)	Picatinny Arsenal, NJ; Vicksburg, MS; Starkville, MS	To achieve efficiencies and cost savings in US military installation energy consumption
Smart Bomb Targeting Radar System	Global Technical Systems	The development of a Multi-Mode Targeting Radar will provide an enhanced, low-cost, highly reliable, day/night and adverse weather targeting capability, greatly reducing collateral damage and ensuring that critical targets are neutralized. ($3,900,000)	Oxford, MS	To improve the accuracy of US weapons, maximizing effectiveness and minimizing collateral damage
Smart Radio Frequency Identification (RFID) Systems	University of Mississippi	This project will develop and demonstrate key Radio Frequency Identification (RFID) technologies for an accurate, automatic, real-time asset tracking system for military and civilian applications, including intelligent RFID-GPS systems that will continuously update asset information while in storage or in transit. ($5,200,000)	University, MS	To improve military operational efficiency and reduce logistics costs
SOC-R Armor Development for Small Arms Armor Piercing Ammo	United States Marine, Inc.	The project would involve the design, development, testing and evaluation of an armor solution for the SOC-R to protect against the threat of small arms armor-piercing ammunition. ($6,000,000)	Gulfport, MS	To improve the performance of US Navy special operations craft and the safety of the military members operating them
Special Operations Craft - Riverine (SOC-R)	United States Marine, Inc.	The project would involve the procurement of six additional Special Operations Craft - Riverine (SOC-R) for Special Operations Forces, providing warfighters with the assets they need to safely operate in hostile riverine environments around the world. ($10,800,000)	Gulfport, MS	To improve US Navy Special Operations capabilities in hostile environments worldwide
Strategic/Tactical Resource Interoperability Kinetic Environment Program (STRIKE)	Adara Networks	The expansion of the STRIKE program will demonstrate the ability to solve the DoD's Medical C2 Information Technology (IT) problems of interoperability, scalability, performance, and security concerns and sunk IT infrastructure costs. ($10,000,000)	San Jose, CA	To increase effectiveness, efficiencies, and savings in military medical operations
Surveillance Augmentation Vehicle - Insertable on Request (SAVIOR)	General Atomics	This project completes a production ready system that is a rapidly deployable ultra-high-resolution sensor/analysis and command & control vehicle yielding human target detection, recognition, and location in a 4 km diameter circle giving unprecedented levels of situational awareness. ($2,800,000)	San Diego, CA	To improve security for our troops operating in harm's way around the world
UID Engineering Support and Demonstration Center	CYTEC Corporation	Funding to establish a technical and engineering support and demonstration center in MS to provide technical resources to support policy decisions and showcase demonstration projects related to Unique Identification (UID) and tracking of DoD assets. ($5,000,000)	Ridgeland, MS	To improve military operational efficiency and reduce logistics costs

Unique Identification of Tangible Items	Applied Enterprise Solutions, LL	This project would support Navy's efforts to comply with the DoD directive to uniquely identify tangible items (IUID). DASN (A&LM) is standardizing these tools across the Dept of the Navy, and Navy tools are being considered for use across DoD and other agencies. This effort could save hundreds of millions of dollars and is expected to dramatically improve support to the troops. ($8,000,000)	Oxford, MS	To improve military logistics efficiency and generate substantial cost savings
Universal Underwater Electronics Interface (UUEI)	Science Applications International Corp	This project enables newly-developed undersea sensor systems with advanced capabilities to interface with existing undersea cables rather than requiring new cable systems, potentially saving hundreds of millions of dollars for each new cable system avoided. ($4,000,000)	Long Beach, MS	To provide dramatic cost savings in the deployment of systems that track seaborne vessels
Unmanned Special Operations Craft - Riverine (SOC-R)	United States Marine, Inc.	This project would provide SOCOM warfighters the ability to remotely assess dangerous riverine and coastal environments, keeping them out of harm's way. Will result in the design, construction, testing and delivery of a unmanned SOC-R demonstration craft to SOCOM for evaluation. ($6,000,000)	Gulfport, MS; Westminster, MD	To protect military members by providing improved unmanned operational capability
Unmanned Tactical Data Collection Platform - Mobile	QinetiQ North America	This project will provide an accelerated capability for Expeditionary Naval Forces to collect relevant environmental and intelligence, surveillance, and reconnaissance data and allow them to effectively exploit the battlespace for tactical advantage. ($2,000,000)	Long Beach, MS	To protect military members by providing improved unmanned intelligence, surveillance, and reconnaissance capabilities
Vectored Thrust Ducted Propeller Compound Helicopter Flight Demo	Piasecki Aircraft Corporation	Requested FY10 funding will allow for modification of the X-49A VTDP Compound Helicopter Demonstrator to further investigate and refine the performance and flight control characteristics of the technology, including VTDP yaw axis control system, wing incidence geometry, and drag reduction modifications, as well as analytical assessment of acoustic characteristics. ($8,200,000)	Essington, PA	To support transformative research and development of advanced helicopter technology
VePro - Vehicle Health Usage Monitoring and Prognostics	HBM-nCode	Reduce operational failures, costs & fuel consumption, save lives, improve vehicle designs & accelerate evaluation plus identify hybrid power opportunities by understanding usage severity & durability using robust, scalable & cost effective VePro systems. ($4,400,000)	Starkville, MS	To improve reliability and fuel efficiency of vehicles
Virginia-Class Propulsor Fleet Spare Rotor	Rolls-Royce Naval Marine, Inc.	This project would manufacture and deliver an improved-design Virginia-Class spare rotor to the fleet inventory, replacing a defective casting currently in production, thereby reducing life-cycle costs associated with frequent monitoring and on-going repairs to the current rotor. ($7,500,000)	Pascagoula, MS	To reduce maintenance costs and ensure continued operational availability of Navy submarines
Water Purification System for Natural Disasters	Parker Hannifin Corporation Village Marine-Tec	The goal of the project is to further develop the company's water purification equipment, which during its initial deployment in Biloxi produced 100,000 gallons of clean water per day after Hurrican Katrina. The system needs bottling capacity to increase its efficiency in response to natural disasters. ($2,500,000)	Gardena, CA	To provide a capability for producing drinking water from seawater or other non-potable sources