FY2011 National Defense Authorization Act Requests

Defense:

Project Title: 90' Range Support Vehicle
Intended Recipient: Maybank Industries Group, LLC
Intended Location: Charleston, SC
Purpose/Project Description:

The Navy's Pacific Missile Range Facility (PMRF), COMNAV Marianas, and Southern California, currently have antiquated Torpedo Recovery Boat fleets. They are each approximately 40 years old and are at the end of their useful service life. Despite an aggressive and costly maintenance program, these craft have developed large areas of rot, which will require extensive replacement. Also, due to the older after-deck design of the rollers and ramp, new test vehicles have experienced significant damage during retrieval. The requested new 90' Range Support Vehicle, with its Advanced Multi-Mission Launch Recovery System, will be capable of executing existing and additional mission assignments, to include lost weapon search, instrument deployment, equipment and personnel transfer, weapon trans-shipment, open ocean retrieval, assistance for USW Coast Guard Search and Rescue, and development support for special vehicles and classified programs associated with anti-submarine warfare.

Project Title: Advanced UV Light Diode Development
Intended Recipient: Sensor Electronic Technology Inc.
Intended Location: Columbia, SC
Purpose/Project Description:

The program will establish a supply of the world's most advanced miniature, low-power consumption, robust and reliable deep UV light sources for equipment to protect troops on the battlefield or civilians in the streets and subways from terrorist bio-weapons, or pathogens which may be present in buildings, food or water and air supplies. In another application, research grade deep UV light sources are currently being supplied to manufacturers of next generation covert communications links which allow for complete radio silence in the field or under conditions of heavy radio communications jamming. This also eliminates enemy explosion of IEDs triggering on RF communications. Also, developers of missile defense related systems needing to operate in solar-blind spectral range conditions will need specific wavelength DUV sources as well. Future DoD applications are expected to include individual water purification, air disinfection and wound sterilization and treatment devices for troops in the field. Improvements which are now in development in the course of this program and proposed continuance in FY 2012 are essential to achieve these objectives.

Project Title: Air Force Supply Chain Innovation Initiative (SCII)
Intended Recipient: South Carolina Research Authority
Intended Location: Charleston, SC

Purpose/Project Description:

The Air Force Supply Chain Innovation Initiative (SCII) is designed to markedly improve the manner in which the GLSC carries out its supply chain mission. Through proven collaborative techniques, it establishes a virtual resource comprised of representatives of leading supply chain experts, thought leaders, and innovators across government, industry, academia, and the vendor community. It will enable the GLSC to identify, develop, assess, and implement new and innovative supply chain solutions that enable the more timely and effective response to its customers' needs, thereby improving delivery times and ensuring higher quality while at the same time lowering O&M costs.

Project Title: Army National Guard Tactical Vehicle Integration Center
Intended Recipient: SAIC
Intended Location: North Charleston, SC
Purpose/Project Description:

The Tactical Vehicle Integration Center at SPAWAR North Charleston, South Carolina will provide a more logistically effective and cost-efficient method of providing fully integrated tactical vehicles to ARNG units. SPAWAR has a strong record of providing such equipment both time- and cost-efficiently: SPAWAR was tasked to provide complete integration of the 18,000 plus Mine Resistant Ambush Protected (MRAP) vehicles and coordinate transportation of the vehicles to Southwest Asia. The Center was subsequently chosen to perform a similar mission for the MRAP-All Terrain Vehicles (M-ATV) that are being sent to Afghanistan. Rather than the current piecemeal process, original equipment would be sent directly to SPAWAR for complete integration and storage until the equipment is ready for fielding to ARNG units. This will improve accountability of equipment through the ARNG inventory control system and provide a secure central location that will ensure protection of valuable ARNG assets. This will result both in cost-savings to state ARNG units as well as significant improvements in readiness.

Project Title: Arrow Weapons System
Intended Recipient: Boeing Company and Israel Aircraft Industries (IAI)
Intended Location: Various
Purpose Project Description:

The Arrow anti-tactical ballistic missile program is the centerpiece of the U.S.-Israel cooperative defense relationship, and is one of the most advanced missile defense systems currently in existence. The Arrow offers Israel an essential capability against imminent and emerging ballistic missile threats, and provides the U.S. with key research and technology for other theater missile defense programs. This funding is needed for the acceleration of the Arrow System Improvement Program (ASIP).

Project Title: Bradley Family of Vehicles Research and Development
Intended Recipient: BAE Systems

Intended Location: Aiken, SC
Purpose/Project Description:

The additional funds will enable the Army to perform Government test and type classification of the Bradley FoV platforms. This earlier testing will then permit the Army to approve procurement of long-lead items for Bradley vehicles in the FY12 budget. The value of Bradleys are that Bradley-equipped Heavy Brigade Combat Teams provides the HBCT maneuver commander with a platform that performs critical mission roles that has the same survivability, force protection, and mobility of the Abrams tank and the Bradley Fighting Vehicle. In addition, a Bradley based replacement for the M113 would result in a 77% commonality within the HBCT formation which significantly reduces the logistic burden, and lowers sustainment and obsolescence costs. Bradley FoV allows the margin and growth capability to remain in the HBCT fleet and be viable and compatible with a Ground Combat Vehicle based HBCT.

Project Title: Cancer Genomics Research Collaborative
Intended Recipient: Medical University of South Carolina
Intended Location: Charleston, SC
Purpose/Project Description:

The Hollings Cancer Center (HCC) at the Medical University of South Carolina (MUSC) requests funding for a research collaborative with the National Functional Genomics Center (NFGC) to improve cancer treatment. MUSC/HCC will supply high level and novel RNA interface screening to the consortium, allowing doctors to strike individual genes in a patient's tumor cells and determine the genes that are controlling the growth of these cells. This technology will be used to determine which specific genes or molecules are encoding for resistance to chemotherapy for each individual patient. The DoD funds a number of initiatives which strive to improve health care for the US Armed Forces, their families and the public sector. The Hollings Cancer Center, through this request, is attempting to attack the high incidence of cancer by combining forces with other major medical centers to use the latest in genetic technology.

Project Title: Chemical and Biological Threat Protection Coating
Intended Recipient: Graniteville Specialty Fabrics
Intended Location: Graniteville, SC
Purpose/Project Description:

The constant threat posed to our US Military and First Responders encountering lethal chemical and biological weapons is ever present. Combating the threat of chemical and biological weapons will be accomplished through the deployment of low-cost ultra high efficiency protective suits and shelters. The suits will allow for the handling of millions of potentially exposed persons through triage and quarantine procedures that will hasten the process of decontamination actions. This funding will help to develop surface enhanced defeat technologies applied to self-decontaminating breathable fabric for garments and collective shelters

Project Title: Controlled Humidity Protection for South Carolina Army National Guard Aviation Support Facilities
Intended Recipient: South Carolina Army National Guard
Intended Location: Eastover, SC
Purpose/Project Description:

SC Army National Guard helicopters and support equipment are critical to the Department of Defense and their wartime missions throughout the world as well as the needs of the people of South Carolina as the National Guard works to fulfill their obligations in homeland security, counterdrug operations, defense support to civil authorities, civil search and rescue, and emergency response. Protection of these aviation assets – valued at over $3 billion – through the use of CHP will result in significant cost savings for the South Carolina National Guard and the Department of Defense.

Project Title: Durability Study on Flame Resistant Garments
Intended Recipient: Milliken & Company
Intended Location: Spartanburg, SC
Purpose/Project Description:

The Army has identified a need for a more durable Flame Resistant (FR) uniform, specifically to weather the harsh conditions and terrain in Afghanistan. With the additional troops being deployed to Afghanistan, there is an ever-increasing need for uniforms that will last longer and give better overall protection. The deliverable of this project will be to introduce field tested, durable flame resistant garments to the Army for immediate incorporation into the soldier's ensemble. This research will also provide information to the Army on the most cost effective, protective FR garments.

Project Title: EMI Hardened Multi-Voltage Fluorescent Stringable Tent Lighting System
Intended Recipient: Jameson LLC
Intended Location: Clover, SC
Purpose/Project Description:

The Air Force has made modernization of its Base Expeditionary Airfield Resources (BEAR)/War Readiness Material (WRM) assets a priority and continues its transition into a lighter, leaner, more deployable configuration. EMI Hardened Multi-Voltage Fluorescent Stringable Tent Lighting Systems support this transition by offering a more dependable, easier to transport, configure, and deploy shelter lighting system. The purpose of this project is to provide funding to the Air Force so that they can purchase EMI Hardened Multi-Voltage Fluorescent Stringable Shelter Lighting Systems to replace current use incandescent shelter lighting. Incandescent lights are based on old, Vietnam War era technology and consume more energy than newer fluorescent lighting, making them more expensive to operate. Incandescent lights require more man-power and expenditure of valuable man-hours in shelter deployment and re-positioning. Moreover, incandescent light bulbs are far less durable and must be replaced more frequently, increasing costs associated with the light. EMI Hardened Multi-Voltage Fluorescent

Stringable Shelter Lighting Systems deliver better value for taxpayers while providing dependable, long-lasting, advanced shelter lighting for deployed Air Force personnel.

Project Title: F-16CM Center Pedestal Display (CPD)
Intended Recipient: South Carolina Air National Guard
Intended Location: Eastover, SC
Purpose/Project Description:

The South Carolina Air National Guard will be deployed in theater this year. Without this critical upgrade to allow full use of onboard systems the 169th Fighter Wing aircraft will be restricted from fully utilizing its sensor suite. The F-16 has outstanding sensor capability, but lack of a third Center Pedestal Display restricts combat effectiveness, especially in a Joint Close Air Support or high threat combat environment. The overall joint effectiveness continues to be reduced, increasing risk to friendly forces.

Project Title: Fuel-saving, secure all-modal container system
Intended Recipient: Erudite Inc
Intended Location: Tacoma, Washington
Purpose/Project Description:

This project provides budget to units defense-wide, enabling the procurement of up to 200 new Erudite-designed EAC 80/40 smart, secure all-modal container systems for field trials. Adopting the Erudite All-modal Container System (EAC) will save tax payers money on each shipment of military and FEMA goods, reducing the fuel needed and thus the carbon footprint associated with cargo movement. It will save taxpayer dollars each time the EAC's security and real-time tracking prevent cargo theft. It will save lives when improved inventory control speeds re supply of forward operating units to prevent their running out of munitions and critical supplies. It will increase high-technology employment in several locations, including South Carolina and Washington state. The use of the Erudite system will greatly reduce the demurrage now being paid by the Department of the Army which was reported to be over $3.7 million dollars in February, 2009. This is a dual-use technology: once adopted, it can be used by FEMA, State Department, and many civilian agencies as well with similar benefits.

Project Title: Green Product Evaluation & Implementation Program
Intended Recipient: Concurrent Technologies Corporation
Intended Location: Columbia, SC
Purpose/Project Description:

The Green Product Evaluation and Implementation Program (GPEP) in conjunction with the Defense Logistics Agency (DLA) will identify manufacturers of commercially available biobased and other Green products, collect product information from these manufacturers, evaluate the product technical data to existing DOD and GSA requirements perform gap assessments, and develop searchable databases of commercially available green alternatives based on government requirements. The program will also review current Government (Military & Civilian) specifications and

requirements of items identified as potential substitution candidates. Green alternative products that require field testing will be evaluated at the United States Army Training Center Ft. Jackson, Untied States Marine Corp Recruit Depot Paris Island, Charleston and Shaw Air Force Bases. The successful evaluation and use of biobased products by the Government will reduce the dependency on foreign produced petrochemicals, reduce the environmental impact of petroleum products, increase the demand for domestically produced agricultural products and increase energy security.

Project Title: Improved Thermal Resistant Nylon for Enhanced Durability & Thermal Protection in Combat Uniforms
Intended Recipient: Greenwood Mills
Intended Location: Greenwood, SC
Purpose/Project Description:

This project will fund R&D for the creation of a Berry Amendment compliant solution/option for improved flame resistant, durable and lower cost materials for the Army Combat Uniforms. The main objective is to increase the safety and protection of the soldier and to meet the urgent need of the threat against Improvised Explosives Devices (IED). The continued and evolving Improvised Explosive Device (IED) threat requires increased thermal protection for soldiers. Currently, the U.S. Army issues four Flame Resistant Army Combat Uniforms (FR ACUs) to each deployed soldier at a cost of $145/uniform—twice the cost of previous non-FR issue. Development of durable ITR nylon fabrics is projected to save the U.S. Army $36-43 Million/yr. in outfitting the deployed force. The end goal of this R&D project falls directly in line with the research goals stated in the Broad Agency Announcement for Basic and Applied Research (BAA) released by the U.S. Army Natick Soldier Research Development and Engineering Center.

Project Title: Institute for Translational Oncology (ITOR) Program
Intended Recipient: Greenville Hospital System University Medical Center
Intended Location: Greenville, SC
Purpose/Project Description:

The Institute for Translational Oncology Research (ITOR) is a collaborative effort between Greenville University Hospital Medical Center, the Clinical Research Unit of Cancer Centers of the Carolinas, Clemson University, and the University of South Carolina. Recently, the Department of Defense has led the way in terms of applied research for cancer immunotherapy, and personalized cancer therapies. The ITOR vision is to become an international destination center for the development and delivery of innovative, personalized cancer therapies. ITOR's primary focus is to create a revolutionary, new model that will expedite the approval process and dramatically reduce costs—seizing the opportunity to incorporate new genomic technologies into an outdated, recalcitrant drug approval process. Senior medical leadership at ITOR have years of U.S. Military medical experience. ITOR will be of tremendous benefit to the Military Healthcare System in helping identify new and effective cancer therapies for US Military personnel and their families in the Military Healthcare System.

Project Title: Joint Operations Center (JOC) modernization
Intended Recipient: The South Carolina National Guard
Intended Location: Columbia, SC
Purpose/Project Description:

The South Carolina National Guard's JOC mission includes an on-the-ground presence during emergencies. It also requires Commercial Off the Shelf equipment to be fully interoperable with other responding elements, such as FEMA, DHS and NORTHCOM, state and local first responders and NGOs. The JOC has reached the end of life cycle effectiveness on some of its equipment, and lacks other equipment to effectively respond to disasters and missions. Modifying the existing infrastructure and adding new technologies which will further enhance the JOC capability is essential for continued effectiveness and relevance. Furthermore, it enhances on-going efforts in the MILCON funding stream to expand the physical platform of the JOC by providing the equipment and technologies for the expansion to be a fully operational system. This project can then be exploited by duplication in other states in the Southeast, or the SCNG JOC could function as a regional hub for any large scale disaster.

Project Title: Laser Blocking/EMI Shielding Protective Windscreen Laminates Continuation Phase
Intended Recipient: United Protective Technologies, LLC
Intended Location: Rock Hill, SC
Purpose/Project Description:

With an increasing risk in laser and electromagnetic attacks on DoD aircraft, the funding of this program is mission critical. Unlike complicated electronic devices, this passive system is "always on", providing protection to the pilot, aircrew and critical aircraft electronics, such as targeting and communications systems. NAVAIR feedback on this program has indicated that the Navy feels this passive laminate structure is a truly fieldable and long term solution to this increasing warfighter threat. As with the currently supplied and utilized sacrificial windscreen laminates, this laser and EMI protective system retains the ability to mitigate windshield damage due to sand erosion and small particle impacts.

Project Title: Light Multi-Mission Vehicle System (LMMVS)
Intended Recipient: Force Protection, Inc
Intended Location: Ladson, SC
Purpose/Project Description:

LMMVS addresses the Army's "capability gap for the LTV fleet that still has yet to be answered." (Army TWV Investment Strategy, 30 Oct, 09). "The improvised explosive device threat will continue to proliferate; land forces need general purposes vehicles suited to different types of terrain and threats, demands of current operations are resulting in a proliferation of increasingly specialized vehicles…" The Army Capstone Concept 21, Dec.09. LMMVS provides protection and mobility in a light general purpose, multi

configurable vehicle. LMMVS fills an immediate critical operational need for a highly survivable and mobile light weight multi-mission tactical vehicle, with significant on board power generation to operate in an extensive IED threat environment.

Project Title: M240 Medium Machine Gun (7.62 mm)
Request: language
The Committee directs that the funds authorized under this Act for the M240 Medium Machine Gun be allocated to the M240 L model in support of the Active Army, National Guard, and Army Reserve requirement of 1655 M240L Light Weight Machine Guns, which significantly reduces the weight of the current M240B variant while maintaining the same level of reliability and effectiveness. The Committee directs that the funds be used to continue fulfillment of the Army's Acquisition Objective for the M240L by replacing B Models with L Models on a one-for-one basis as the B's are withdrawn from service. The Army's existing inventory of M-240B's should be sent back to depot for refurbishment and then reserved for Foreign Military Sales.
Intended Recipient: FN Manufacturing, LLC
Intended Location: Columbia, SC
Purpose/Project Description:

Requested Report language will stipulate into law that the M240L is the follow-on to the current M240B infantry (dismounted) version. The Armed Forces are eagerly awaiting the M240L because of its many advantages over the M240B. It reduces overall system weight by 7 pounds. The L's new lightweight barrel is four inches shorter, making the weapon more mobile and easier to employ, especially in close or urban combat. The M240L's lighter titanium receiver, along with other new components and improvements lighten the soldier's combat load by nearly 20% without sacrificing the lethality and effectiveness of the M240. This weight savings translates into greater mobility and less fatigue in combat, especially critical in difficult terrain like Afghanistan.

Project Title: M-Gator
Intended Recipient: John Deere
Intended Location: Horicon, Wisconsin
Purpose/Project Description:

M-Gators fill critical equipment shortages in Infantry, Aviation, Military Police, Combat and Field Service Hospitals, Special Operations, and other Combat Support and Combat Service Support units. The M-Gator enjoys an enviable reputation because of its ruggedness, load-carrying capability, and reliability. Army units have never had sufficient operational funding to either initially purchase M-Gators or, in cases where M-Gators have been purchased, replace those that have been heavily utilized in combat and are beyond repair. The requested funds will meet unfunded requirements for both purposes.

Project Title: Multi-Enclave Net-Centric Data Exchange Environment
Intended Recipient: Science Applications International Corporation via SSC ATLANTIC

Intended Location: Charleston, SC
Purpose/Project Description:

The purpose of this project is to advance the concepts of data information sharing between multiple federal entities. This will enable agencies to find and discover information they previously did not have access to, or have the ability to semantically or contextually understand. The need to exchange information across federal enclaves was a deficiency recognized in the 911 report to congress as well as many other subsequent industry and academia white papers. The goal of this project is to reduce taxpayer cost by making authoritative data sources accessible across enclaves in a common interoperable way so that it does not have to be duplicated and thus suspect to time latency and error. The military will benefit from this effort through reductions in speed to decision making, warfighter information sharing, cost reductions through reuse, and more consistent and accurate war planning.

Project Title: Multi-Fuel Use Diesel Engine Project
Intended Recipient: EngenuitySC
Intended Location: Columbia, SC
Purpose/Project Description:

The Army does not have access to an on-road, commercial off-the-shelf (COTS) diesel engine that can meet current emission standards and use multiple types of fuel. Presently, the Army is operating under a National Security Exemption to utilize 1998 emission compliant on-road engines or Tier III off-road COTS engines (which also have lower emission standards) to fill the gap. However, Tier IV off-road engines will be gradually phased in by 2014 with more stringent emissions standards and thus create similar challenges in cost, modification for military applications and timing for implementation as current emission, on-road engines present today. Therefore, the Army needs access to a COTS diesel engine with multi-fuel capabilities that has the potential to meet current emission standards and still maintain performance and durability standards. Development of such an engine will also assist the Army in its goal to reduce reliance on foreign oil.

Project Title: Next Generation High Strength Glass Fibers for Ballistic Armor Applications
Intended Recipient: AGY Holding Corp
Intended Location: Aiken, SC
Purpose/Project Description:

This second year project continues development of next generation high strength glass fibers for use in composite armor. Using available sizing and resin systems, the project builds upon first year objectives and completes benchmarking of current high strength glass fibers. Characterization of the fibers will be done to determine structural (static testing) and ballistic (high strain) performance. After benchmarking is completed the focus will shift towards the investigation/development of new glass compositions, new

sizing systems, and new fiber and fabric architectures. Completion of this second year will put the program well towards meeting its goals of a "next generation" glass fiber that is considerably, lighter, stronger, and more easily integrated into structural armor elements with the purpose of providing better protection for our military.

Project Title: Regional Cyber Security Test Bed
Intended Recipient: Scientific Research Corporation
Intended Location: North Charleston, SC
Purpose/Project Description:

The funds requested for this project will be directed toward urgently needed test technology research leading to the assessment, design, specifications and initial operations for a Regional Cyber Security Test Bed that addresses technology gaps as well as the work force needed to support cyber security concerns of the U.S. Congress and the Department of Defense. Accordingly, this project will be linked with a new Science and Engineering Graduate School to be located at the former Navy Base. Academic cyber security research and new courses will be evaluated along with transition activities as appropriate. Military, industry and community requirements will be evaluated where possible, including those of emerging security issues. Critical transition plans, key personnel and current facility modifications will be provided where practical. This Regional Cyber Security Test Bed will feature new software algorithms for testing intelligent agents controlling networks, definition of complex system integration problems associated with information assurance and modeling of security improvements in cyberspace. Emphasis for this Regional Cyber Test Bed will be tactical in nature, all though aligned with national requirements, and focused on direct support for are warfighter by providing a location where technology and technology gaps can be evaluated for the support of tactical missions involving both Cyber attacks against enemy forces and Cyber security for our systems.

Project Title: Rule of Law at the University of South Carolina
Intended Recipient: University of South Carolina
Intended Location: Columbia, SC
Purpose/Project Description:

Rule of law is a cornerstone in the stability operations our military is executing in Afghanistan and Iraq. It is one of the key areas in which multiple government agencies and non-governmental agencies seek to develop policy and strategy in pursuit of the same goal. Yet despite the wide recognition of the importance of rule of law, there is no central location within the United States where all of these participants come together to gain understanding and prepare themselves for this unique mission. This funding will be used to expand interagency training and research in the area of rule of law in stabilization operations. Additionally, this funding will help address DoD's request to compile a documentary archive and database to support on-going interagency training on rule of law promotion in post-conflict situations.

Project Title: SCAR (Special Operations Combat Assault Rifle)

Intended Recipient: FN Manufacturing, LLC
Intended Location: Columbia, SC
Purpose/Project Description:

In FY2010, $9M was cut from the President's Budget Request for SCAR, based on USSOCOM's delays in obligating the funding. These delays were not due to performance of the weapon or contract execution. The requested $4 M plus-up in FY 2011 is needed to replace that shortfall and enable USSOCOM to reach Initial Operational Capability (IOC) with the much-needed MK17 (SCAR-Heavy).

Project Title: Second Source Tires for the F-35C (Carrier Variant) Nose and Main Landing Gear
Intended Recipient: Michelin North America
Intended Location: Greenville, SC
Purpose/Project Description:

The project is to develop second source tires for the nose and main landing gear for the F-35C (carrier variant). A design, engineering and development project like the F-35C will help sustain the technological expertise in an area that is required for long-term support in the aerospace industry.

Project Title: Sustainable Carbon Fiber Manufacturing
Intended Recipient: Cytec Carbon Fibers
Intended Location: Piedmont, SC
Purpose/Project Description:

This project will advance the carbon fiber manufacturing process by converting Acrylo-Nitrile (AN) liquid to Poly-Acrylo-Nitrile (PAN) fiber and then converting the PAN fiber to carbon fiber by oxidizing and carbonizing. This sustainable manufacturing process of carbon fiber improves conversion process efficiency, purifies unused AN for reuse, recovers heat and recovers water. This project benefits both the Air Force and the Department of Defense as a whole because multiple military aircraft/systems benefit from a sustainable supply chain. Furthermore, the project promotes compliance with Executive Order 13514 which includes DoD objectives to establish an integrated supply-chain strategy towards sustainability, reduce greenhouse gas, and drive a "green economy."

Project Title: TRICON and QUADCON Shipping Containers
Intended Recipient: CMCI
Intended Location: North Charleston, SC
Purpose/Project Description:

Without containers our military forces cannot effect strategic deployments. Department of the Army Deployment documents indicate a need, as a minimum, of 120,000 TRICON and QUADCON containers to provide the packing and shipping capability to keep Army and Marine Corps units mobile. Less than half of these essential containers have been

purchased. Containers must be robust enough to withstand field handling and surface movements by all modes of transportation.

Project Title: Ultra light-weight hybrid (JP-8 Fuel & Battery) power system to enable persistent stare for UGVs
Intended Recipient: XRD Inc
Intended Location: Beaufort, SC
Purpose/Project Description:

The Department of Defense is aware of the need for new power systems for Unmanned Ground Vehicles. DoD is particularly concerned that operational capabilities be increased and lengthened to meet threats as soon as possible. The MAARS platform development continues to advance this technology through an ongoing program, however current funding levels are not sufficiently addressing the persistent stare power system mission that will allow it to rapidly deploy a cost-effective power system capability to the field.

Project Title: Vibration Management Enhancement Program (VMEP)
Intended Recipient: Honeywell Helicopter and Surface Systems
Intended Location: Columbia, SC
Purpose/Project Description:

To complete installation of VMEP systems on those ARNG AH-64D Attack Helicopters still without VMEP, and to expand existing VMEP capabilities, thus gaining additional aircraft/aircrew safety, realizing greater operation and maintenance cost reductions, and further enhancing combat readiness. VMEP is an embedded Condition Based Maintenance (CBM) system "required" by the Army for mechanical fault detection for the entire aircraft power train.

Project Title: Warfighter Sustainment/Naval Ship Hull Advanced Technology Research
Intended Recipient: Clemson University
Intended Location: Clemson, SC
Purpose/Project Description:

Marine bio-fouling and corrosion are complex and highly-related degradative processes that annually cost hundreds of millions of dollars in wasted fuel, dry-dock repairs, ship downtime and premature material failures. Biofouling of optical sensors and other transducers on vessels also compromises performance, causing high frictional resistance, reduction in speed, and loss of maneuverability – a growing military concern. As most marine coating systems in use today rely on a combination of active (toxic leachable copper) and passive protective coatings to provide a durable, well-adhered, impervious film on vessels, the negative ecological consequences are of serious concern. The ultimate objective of this research is to employ a systems approach to the development of safe, green and biological relevant anti-corrosion and anti-fouling materials and coatings by combining marine biology and materials science.