Defense and Military Construction Appropriations Requests

The following requests are Idaho-related projects supported and sponsored by Senators Crapo and Risch:

Item Name: 3-D Technology for Advanced Sensor Systems
Amount Requested: $2,950,000
Recipient: Boise State University
Location of work: Boise, ID
Federal Support Interest: To develop 3-D technology for advanced sensor systems in use by the U.S. military.
Project Description: The military has a need for new three-dimensional (3-D) packaging of electronic systems, particularly sensor systems for portable applications. Boise State University has developed 3-D materials processing techniques being applied to create electronic 3-D integration and packaging solutions applicable to a general category of high performance sensor systems.

Item Name: AFSOC Gunship Lethality Improvement
Amount Requested: $8,000,000
Recipient: ATK CCI/Speer
Location of work: Lewiston, ID
Federal Support Interest: To extend the range and improve gun and ammunition system performance for the U.S. Air Force.
Project Description: AFSOC weapons that were initially designed for Infantry fighting vehicles require improved ammunition and modifications to provide increased lethality and accuracy. AFSOC Lethality Improvements extend the range and improve gun and ammunition system performance. The project will improve the lethality, range, and survivability of AFSOC MC0130 gunships by modifying guns and ammunition systems to meet operational engagement range requirements of the aircraft.

Item Name: Abrams Virtual Operations Trainers for Idaho National Guard
Amount Requested: $3,000,000
Recipient: Idaho National Guard
Location of work: Boise, ID
Federal Support Interest: To support training for the Idaho National Guard.
Project Description: The United States Army National Guard currently has no training devices permitting its soldiers to train gunnery operations on Abrams M1A1 AIM SA tanks. The current fleet of Abrams Gunnery Trainers no longer can provide this mission essential training. When fielding is fully completed, the Abrams Virtual Operations Trainer (AVOT) will provide the required Abrams tank gunnery training for each Army National Guard Heavy Brigade Combat Team. AVOT equipment is essential for Army National Guard tank unit combat readiness.

Item Name: Accelerator-Driven Non-Destructive Testing
Amount Requested: $4,000,000
Recipient: Idaho State University
Location of work: Pocatello, ID
Federal Support Interest: To help the U.S. Air Force reduce aircraft downtime necessary for inspection and enhance turn-around times by more quickly identifying needed repairs.
Project Description: Advanced non-destructive testing and imaging techniques are critical part of the national technology infrastructure because material failures cost the U.S. economy billion of dollars each year. The development of non-destructive testing techniques will be of great value to the military by reducing inspection and repair time. The Idaho Accelerator Center will continue development of penetrating and non-destructive testing techniques.

Item Name: Bradley Virtual Operations Trainers for Idaho National Guard
Amount Requested: $3,000,000
Recipient: Idaho National Guard
Location of work: Boise, ID
Federal Support Interest: To support training for the Idaho National Guard.
Project Description: The Army National Guard currently has no training devices permitting its soldiers to train gunnery operations on Bradley M2A2 ODS SA fighting vehicles. Bradley Virtual Operations Trainers (BVOT) would replace obsolete Bradley AB-FIST trainers not capable of training soldiers for the newly-fielded Army National Guard M2A2 Bradley ODS SA vehicles. Without the BVOTs, Army National Guard will have no crew gunnery trainers providing critical virtual gunnery training for its Bradley Fighting Vehicle crews.

Item Name: Civil Engineer Maintenance Complex
Amount Requested: $24,000,000
Recipient: Air Force
Location of work: Mountain Home AFB
Federal Support Interest: To support U.S. Air Force needs at Mountain Home Air Force Base.
Project Description: The Civil Engineer Maintenance facility on Mountain Home AFB is currently fragmented among thirteen World War II and Korean War-era buildings. Seven of these buildings are condemned due to failing roof structures and cracked and spreading concrete foundations. Cracked foundations have contributed to failing floors and trusses, presenting risk to squadron members working in the facility. All employees must evacuate these buildings to ensure their personal safety during heavy snow or periods of high winds. The Civil Engineer Maintenance Complex will consolidate this organization's complex functions to facilitate coordination among civil engineering support functions and provide better span of control. The new facility will provide efficient space utilization for the Base Civil Engineer roles and responsibilities, which include administrative support, planning, design, contracts management, environmental management, all maintenance ships, training requirements, explosive ordnance disposal management, readiness functions, and storage of supplies, material, and equipment.

Item Name: Counter MANPAD RF Amplifier
Amount Requested: $2,000,000
Recipient: Transtector Systems
Location of work: Hayden, ID
Federal Support Interest: To provide a viable ground-based alternative for the protection of civil and military airports in the event of man-portable missile attacks on U.S. interests.
Project Description: Man-portable air defense missiles represent a significant threat to military aircraft during take-off and landing and limit operational flexibility. This technology helps provide a defense for airports from the threat of shoulder launched missiles with an umbrella of protection for arriving and departing aircraft.

Item Name: Critical Infrastructure Cyber Operations Simulation
Amount Requested: $3,000,000
Recipient: Idaho National Laboratory
Location of work: Idaho Falls, ID
Federal Support Interest: To enhance U.S. military cyber security protection mission capabilities.
Project Description: These funds will be used to develop a U.S. Air Force cyber security emulation system that provides a synthetic operational environment for training, testing and exercising capabilities to protect critical infrastructure. This capability will provide cyber warriors with a realistic simulation of infrastructure environments and infrastructure control systems that includes full functional, physical and cognitive fidelity.

Item Name: Digital Multi Purpose Training Range
Amount Requested: $20,000,000
Recipient: Idaho National Guard
Location of work: Gowen Field
Federal Support Interest: To support the training of the Idaho National Guard.
Project Description: The training of Idaho National Guardsmen to meet requirements cannot be accomplished with current facilities. Idaho Army National Guardsmen are required to train at distant installations requiring additional costs in logistics. This project will modernize an existing facility to a Digital Multi Purpose Training Range. The new Digital Multi Purpose Training Range will allow for the efficient and relevant pre-mobilization training of soldiers. The new range will reduce the logistical cost of training soldiers at other locations throughout the United States.

Item Name: Design, Engineering and Integration Solutions for the Joint Multi-Mission Submersible Program
Amount Requested: $5,000,000
Recipient: Premier Technology, Inc
Location of work: Blackfoot, ID
Federal Support Interest: To support the U.S. Navy SEALs missions.
Project Description: The Joint Multi-Mission Submersible (JMMS) is a manned, dry-combatant submersible that provides a clandestine mobility platform. It will be capable of operating in a wide range of littoral and threat environments and will be tactically transported by specially modified submarines. The JMMS will provide improved performance over the Advanced SEAL Delivery System and will permit small, highly-trained forces to operate in denied areas increasingly controlled by a sophisticated threat.

Item Name: Electric Grid Test Bed
Amount Requested: $5,000,000
Recipient: Idaho National Laboratory
Location of work: Idaho Falls, ID
Federal Support Interest: To assess national security implications of cyber threats on the national power grid.
Project Description: These funds will establish a National Electric Grid Reliability Test Bed for evaluating the reliability and security of our nation's electrical grid infrastructure. The resulting research and development will be applied to the emerging technologies related to Smart Grid to address and mitigate potential reliability vulnerabilities from environmental and human events. These funds would be used to analyze emerging national power infrastructure challenges related to the emerging cyber threats.

Item Name: Electromagnetic Wave Propagation Research for US Navy
Amount Requested: $2,965,000
Recipient: University of Idaho
Location of work: Moscow, ID
Federal Support Interest: To promote advanced signature control technologies to counter hostile mine threats.
Project Description: This project focuses on high-frequency and microwave signals emission and reflection (electromagnetic signature) reduction analysis, modeling, and experimentation in order to develop test platform and simulation software to assess signature features of non-classified targets in the presence of fog, rain, and background clutter in a marine environment.

Item Name: Enhanced Survivability of Critical Military Assets
Amount Requested: $4,000,000
Recipient: Idaho National Laboratory
Location of work: Idaho Falls, ID
Federal Support Interest: To develop and assess advanced protective systems for strategic military assets.
Project Description: This program will address possible threats to assets and the need for additional protection of special nuclear materials and strategic military assets. In particular, the Idaho National Laboratory will conduct assessments to determine the effects of a variety of threats, and develop mitigation solutions to protect critical strategic military assets from a variety of terrorist and military threats. This work will include advanced computer modeling, blast and ballistic testing, materials development and testing, and armor development.

Item Name: Graywater Treatment Technology
Amount Requested: $1,200,000
Recipient: University of Idaho
Location of work: Moscow, ID
Federal Support Interest: To improve shipboard wastewater treatment and water reuse technology.
Project Description: Current shipboard wastewater is addressed either by discharge at sea, storage in limited capacity holding tanks, or utilization of outdated technologies for wastewater. The wastewater problem also limits operational flexibility for military vessels and creates a detectable signature by air and space reconnaissance. This project will develop low-power oxidation approaches to treat shipboard wastewater, permitting more days at sea and reducing detectable chemical signatures for U.S. Navy vessels.

Item Name: Hybrid Energy Systems Design and Testing
Amount Requested: $6,000,000
Recipient: Idaho National Laboratory
Location of work: Idaho Falls, ID
Federal Support Interest: To provide system designs and validation data for advanced clean energy systems in use by the U.S. Army.
Project Description: The U.S. Army must increase the security, flexibility, and surety of its energy supplies and resilience of energy infrastructure while reducing environmental impacts. The project will provide hybrid system designs, focused on existing Army bases, and supporting experimental data necessary to validate the designs and better realize the potential of hybrid systems for Army energy security.

Item Name: Hybrid Power Generation System
Amount Requested: $5,560,000
Recipient: Motionetics, Inc.
Location of work: Boise, ID
Federal Support Interest: To develop high-efficiency generators to meet the energy demands of the U.S. military.
Project Description: The development of alternative energy generation technologies is critical to secure our nation's energy independence and security by eliminating our dependence on foreign fuel sources. Increasing the efficiency of current generators or producing novel generator configurations can reduce our nation's dependence on foreign oil, thereby enhancing our nation's security. This project is developing high-density generators based on breakthrough configurations of permanent magnetic material, coil designs, and mechanics.

Item Name: Idaho Center for Extremophile Research and Training
Amount Requested: $2,500,000
Recipient: Idaho State University
Location of work: Pocatello, ID
Federal Support Interest: To help develop improved neutralization strategies against biothreats, more effective treatments for radiation exposures in humans, and enhanced treatments for cancers and other diseases.
Project Description: The project, which previously utilized research into radiation-resistant extremophiles to design more effective treatments for human radiation exposure, is now branching out into other extreme environments, such as extreme hot/cold, outer space, and harsh chemical environments to learn more about biological resistance to such environments and possible applications for the future security of the United States.

Item Name: Improving Military Families' Access to Health Care for Behavioral Disorders via Telehealth
Amount Requested: $1,200,000
Recipient: Caring Technologies, Inc.
Location of work: Boise, ID
Federal Support Interest: To develop telehealth technology to improve care for PTSD, TBI and autism.
Project Description: Military families are often stationed in regions where immediate or near-term access to needed health care for family members with special behavior disorders is not available. The foundational well-being of the service member and mission focus is directly tied to the well-being and care for his or her family. As demonstrated by other telehealth technologies, better communication of issues from a familiar environment allows for a more efficient use of the care providers' time, better clinical information, significant travel and cost savings, and meeting the unmet need of families lacking access to services. This project would assist military dependents with autism on military bases to communicate behavior and symptoms to remote health care specialists in a way that would cost-effectively benefit the patient.

Item Name: Integrated Passive Electronic Components
Amount Requested: $2,659,000
Recipient: University of Idaho
Location of work: Moscow, ID
Federal Support Interest: To develop improved materials that reduce size and increase performance of spacecraft computing systems and the capability for increased flexibility and on-orbit adaptability.
Project Description: This project will develop new materials, circuits, and processes to integrate power regulation directly onto digital microchips, providing stable power for ultra-low-power digital circuits. It is a convergence of university and industry research and development enabling a dual-use solution for U.S. military's critical need for ultra-low-power electronics.

Item Name: Laser Studied and Enhanced Reactive Materials: Self-Decontaminating Polymers for Chem-Biological Defense
Amount Requested: $2,000,000
Recipient: Boise Technology, Inc.
Location of work: Nampa, ID
Federal Support Interest: To enhance the chemical/biological protection capability for the warfighter.
Project Description: This project supports the military's requirement to improve the chemical/biological protection capability of the present chemical-biological suit by studying the molecular scale properties of the materials interactions with threat agents and the environment to develop new self-deactivating or self-decontaminating materials.

Item Name: Medical Modeling and Simulation Through Synthetic Digital Genes
Amount Requested: $2,750,000
Recipient: Crowley Davis Research, Inc.
Location of work: Boise, ID
Federal Support Interest: To develop enabling technologies for advanced tissue modeling with particular emphasis on the human skin as well as related toxicological platform development and stem cell research.
Project Description: Shortcomings with existing tissue modeling and resulting medical simulators have forced the military to seek the active research and development of novel and effective ways to bring about higher degrees of physiological fidelity during training of personnel for combat casualty care. In the event of an airborne viral epidemic, the rapid diagnosis and resulting recommendation of appropriate countermeasures will be crucial for the prevention of widespread casualties. The project is currently developing enabling technologies with significant progress in the integration of biological principles into computer-based architectures, which will provide advanced forms of medical simulation for our military branches.

Item Name: Mine Resistant Ambush Protected Vehicle Virtual Trainers for Idaho National Guard
Amount Requested: $5,000,000
Recipient: Idaho National Guard
Location of work: Boise, ID
Federal Support Interest: To support the training of the Idaho Army National Guard.
Project Description: MRAP-VVTs are the Army National Guard's number one priority in support of current operations training procurement. Since almost no MRAP vehicles are available in the United States for training, MRAP-VVTs are essential in order to provide the training necessary for these crews to learn the skills necessary to operate the vehicles safely and successfully.

Item Name: Next Generation Decontaminating Soaps for DOD
Amount Requested: $1,600,000
Recipient: Boise Technology, Inc.
Location of work: Nampa, ID
Federal Support Interest: To improve chemical-biological decontamination surfactants to protect military and civilian populations.
Project Description: This project improves chemical-biological decontaminating surfactant systems by research of the molecular-level, physiochemical details of surfactant macromolecular structures as they interact with a surface and contaminant. This information is critical to establish a cost-effective method to improve surfactant cleaning/decontaminating ability for today's threat agents, as well as preparing for future, unknown threats that will arise.

Item Name: Photoacoustic Chemical Sensor
Amount Requested: $1,750,000
Recipient: Manning Applied Technologies, Inc.
Location of work: Troy, ID
Federal Support Interest: To develop a portable instrument to detect airborne chemical agents and toxic industrial chemicals.
Project Description: This project seeks to develop portable and handheld infrared chemical agent sensors. These instruments are ideally suited for the detection of airborne chemical agents and toxic industrial chemicals well below permissible exposure limits in the parts-per-billion range. A portable, but not handheld, prototype is currently being tested and additional work will make the instrument a handheld device.

Item Name: Proposed Neurobehavioral Surveillance of Brain Injured Military Personnel Post Concussive Syndrome, (PCD), and Post Traumatic Stress Disorder (PTSD)
Amount Requested: $2,797,400
Recipient: Idaho Neurological Institute, Saint Alphonsus Regional Medical Center
Location of work: Boise, ID
Federal Support Interest: To provide comprehensive treatment and neuroimaging research of Idaho's PTSD afflicted military populace.
Project Description: Post Traumatic Stress Disorder (PTSD) and brain injury are rarely diagnosed within the acute or sub-acute combat setting and manifests the paralyzing sometime permanent symptomatology weeks to months after the traumatic incident. The only treatment location in Idaho is the Veterans Health Administration hospital in Boise, where one Physician Assistant attends to over 500 afflicted soldiers. Presently, the numbers of PTSD, brain injured military personnel are being treated with group therapy, minimally available services, and follow-up. The project will involve functional MRI imaging and stratified treatment protocols to members of Idaho's southwest veteran populations afflicted with this disorder.

Item Name: Radiation Hardened Cryogenic Read Out Integrated Circuits
Amount Requested: $5,000,000
Recipient: ON Semiconductor
Location of work: Pocatello, ID
Federal Support Interest: To enhance capabilities and radiation tolerance of space based thermal imaging read out integrated circuits for U.S. military applications.
Project Description: The U.S. Military Space Industrial Base Council has identified read out integrated circuits as one of the top five technologies at risk for supply to spaced-based military applications. This program will benefit multiple government agencies utilizing reconnaissance satellites, thermal weapon sites, reconnaissance unmanned aircraft, high altitude and space-base imaging, and missile systems by enhancing survivability in space.

Item Name: Reconfigurable Electronics and Non-Volatile Memory Research
Amount Requested: $900,000
Recipient: Boise State University
Location of work: Boise, ID
Federal Support Interest: To develop robust, radiation tolerant, low-power, and reconfigurable memory technology that can be used in military vehicles, satellites, space vehicles, and in space exploration systems.
Project Description: All modern military technologies require the ability to reliable store and process information under extreme conditions. The project will study materials systems and electronic devices for reconfigurable electronics and phase-change memory applications. This project is developing new memory devices capable of maintaining information in the absence of electrical power supplies or in the presence of radiation sources.

Item Name: Smart Prosthetic Hand Technology
Amount Requested: $3,500,000
Recipient: Idaho State University
Location of work: Pocatello, ID
Federal Support Interest: To develop prostheses that simulate the intricate operations of the human hand.
Project Description: The goal of this program is to research, develop, and demonstrate an intelligent prosthetic hand that provides both veterans and non-veterans with missing limbs the ability to have natural/human-like motions using synergy of intelligent signal processing, robotics, biomechanics, identification, intelligent control, bio and nano-materials, tissue engineering, pharmacology and micro-technology, and physical therapy and rehabilitation.

Item Name: Support Equipment for Time Critical Targeting, Senior Scout
Amount Requested: $1,998,200
Recipient: Sierra Nevada Corporation
Location of work: Idaho Falls, ID
Federal Support Interest: To support improvements in intelligence gathering and analysis in a time-sensitive and cost-effective manner.
Project Description: The Time Critical Targeting Testbed project is an electronic surveillance program that to tests and evaluates tactics and procedures for technologies used in Overseas Contingency Operations. Funding will enable improved accuracy of intelligence gathering platforms and quality of reporting critical time sensitive intelligence. The program could also be used to locate our troops if separated from their units.

Item Name: Telemedicine Integrated Warrior Recovery and Re-Entry
Amount Requested: $1,600,000
Recipient: Business Psychology Associates
Location of work: Boise, ID
Federal Support Interest: To develop a model telemedicine program for military personnel and dependents suffering from PTSD and TBI.
Project Description: Working in cooperation with the U.S. Army Telemedicine and Advanced Research Command, Department of Veterans Affairs Medical Center in Boise, the Idaho National Guard, and Idaho telemedicine networks, Business Psychology Associates will create a new model of mental health and substance abuse care delivery and test it with a target population of military individuals and their families struggling with post traumatic stress disorder (PTSD) and traumatic brain injury (TBI). This project will assist the Army develop new methods of treatment delivery and bridge the gap between the case management of medical and non-medical care for PTSD and TBI treatment.

Item Name: USAF Joint Threat Emitter Production for Mountain Home AFB
Amount Requested: $6,300,000
Recipient: Mountain Home AFB
Location of work: Mountain Home, ID
Federal Support Interest: To support training of U.S. Air Force personnel at Mountain Home Air Force Base.
Project Description: The Joint Threat Emitter is a sophisticated multi-threat Electronic Warfare Training System that is replacing aging threat systems. The Joint Threat Emitter program is replacing these assets with a programmable and transportable system that is providing advanced training capability for all weapon systems as they engage on the ranges of today and the future. The Joint Threat Emitter system simulates electronic combat signals and is designed to provide realistic electronic warfare training for pilots and aircrew members.

Item Name: Virtual Convoy Operations Trainers for Idaho National Guard
Amount Requested: $6,000,000
Recipient: Idaho National Guard
Location of work: Boise, ID
Federal Support Interest: To support training for the Idaho National Guard.
Project Description: Virtual Convoy Operations Trainers (VCOT) are required for numerous Army National Guard units that are deploying or scheduled to deploy to Middle Eastern locations. The VCOT is designed to work in conjunction with MRAP Vehicle Virtual Trainers in order to provide a complete convoy training package for our soldiers. VCOT also trains vehicle crews who operate their vehicles to provide resupply and support. In both combat and resupply roles, the vehicle crews have been attacked and must be prepared to defend themselves and to defeat the enemy force.

Item Name: Virtual Door Gunner Trainers for Idaho National Guard
Amount Requested: $1,500,000
Recipient: Idaho National Guard
Location of work: Boise, ID
Federal Support Interest: To support training for the Idaho National Guard.
Project Description: The Virtual Door Gunner Trainer (VDGT) is the first virtual door gunner trainer that allows helicopter crews to train to defend themselves from multiple ground fire weapons. It will allow helicopter crew chiefs to train door gunner operations in the Middle East Contemporary Operations Environment and other types of terrain.
VDGT will provide essential door gunner training for helicopter crews that is not currently available without expending flying hours, ammunition, and firing ranges. Additionally, the VDGT allows enlisted air crew members to train door gunnery skills with or without pilots being present.

Item Name: West Nile Virus Vaccine
Amount Requested: $1,500,000
Recipient: Boise State University
Location of work: Boise, ID
Federal Support Interest: To develop an oral vaccine to protect humans from West Nile Virus disease.
Project Description: West Nile Virus (WNV) is a potentially fatal mosquito-borne disease that has recently spread from the Middle East to most of the United States, sickening more than 25,000 and killing over 800. Idaho is one of the most afflicted states in the country, with 984 cases in 2006. This project will combine recent advances in biotechnology with emergent nanotechnologies to design a safe, novel and effective human vaccine for West Nile Virus. In addition, vaccine technologies developed would find broad application to the design of vaccines for many other emerging diseases, such as avian influenza and bioterror/biowarfare agents.