Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Office of Secretary Of Defense	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604051D8Z: *Defense Acquisition Challenge (DAC) Program*

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	22.270	24.836	-	-	-	-	-	-	-	Continuing	Continuing
P051: *Defense Acquisition Challenge Program*	22.270	24.836	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Authorized by Title 10, U.S. Code, Section 2359b, the Defense Acquisition Challenge (DAC) Program increases opportunities to insert innovative and cost-saving technologies into Department of Defense (DoD) acquisition programs. DAC funds the test and evaluation of technologies and products with potential to improve performance, affordability, manufacturability, or operational capability of current acquisition programs at the subcomponent, component, or system level.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	24.344	-	-	-	-
Current President's Budget	22.270	24.836	-	-	-
Total Adjustments	-2.074	24.836	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	25.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-1.462	-			
• SBIR/STTR Transfer	-0.392	-			
• Economic Assumptions	-0.124	-	-	-	-
• FFRDC	-0.089	-0.164	-	-	-
• Other Program Adjustments	-0.007	-	-	-	-

Change Summary Explanation

Based upon a congressional add of $25.000 million, the Defense Acquisition Challenge Program (DACP) will continue its efforts into FY 2012.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
P051: *Defense Acquisition Challenge Program*	22.270	24.836	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Authorized by Title 10, U.S. Code, Section 2359b, the Defense Acquisition Challenge (DAC) Program increases opportunities to insert innovative and cost-saving technologies into Department of Defense (DoD) acquisition programs. DAC funds the test and evaluation of technologies and products with potential to improve performance, affordability, manufacturability, or operational capability of current acquisition programs at the subcomponent, component, or system level.

Since the program inception in FY 2003, Office of Secretary of Defense (OSD) has initiated 151 projects; 96 projects have been completed to date; 69 met Service or Agency testing requirements and 49 led to procurements with technology currently in use by our warfighters in Iraq, Afghanistan, or at U.S. training facilities. Given the program tests developed equipment, Service and United States Special Operations Command (USSOCOM) program managers report that the average Research, Development, Test and Evaluation (RDT&E) and Operations and Support (O&S) non-recurring cost avoidance is at least 5-to-1.

The DAC program provides the Department an efficiency that is not generally recognized. With centralized DAC funding in OSD, funding can be readily moved among the Services and USSOCOM to take advantage of emerging opportunities and fund joint projects.

DAC increases opportunities for domestic vendors to enter the DoD acquisition process. Although business size is not an evaluation criterion, approximately 60 percent of the projects awarded are with technology providers at the small or mid-sized enterprise level. DAC has the additional DoD/National Security benefit of expanding the industrial base for Defense acquisition.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Advanced Radio Frequency Distribution Unit (RFDU) for Improved SIGINT (Navy)	0.900	-	-
Description: This project will test and evaluate a Signals Intelligence (SIGINT) RFDU for the Navy's CCOP (Cryptologic Carry-on Program) that allows the detection of weak radio frequency signals in the presence of strong shipboard Electromagnetic Interference (EMI). This technology will replace a closed, obsolete product with an improved, modular, cryogenically-cooled system that is easily scalable to meet future mission needs.			
FY 2011 Accomplishments: Contracted for test articles in 3Q FY 2011. Test articles delivered during 4Q FY 2011. Commenced environmental testing and evaluation in 4Q FY 2011.			
FY 2012 Plans:			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Conduct environmental testing and evaluation in 1Q FY 2012. Perform range testing and shipboard installation and testing from 2Q – 3Q FY 2012. Complete technical report, closeout reports and procurement decision by the end of 4Q FY 2012.			
Title: Automated Digital Network System (ADNS) Wide Area Network (WAN) Optimization Challenge (Navy) ***Description:*** Test commercial off-the-shelf products to determine their suitability for deployment within the Fleet communications environment. Perform an assessment and quantify the benefits of the four key WAN Optimization functions; 1) Network Monitoring, 2) Quality of Service, 3) Advanced Compression and 4) Protocol and Application Acceleration. If deployed Fleet-wide, WAN Optimization technology has the potential to double the utility of this existing asset. ***FY 2011 Accomplishments:*** Completed laboratory based comparative vendor testing and evaluations from 1Q-4Q FY 2011. Initiated formal ADNS Program related transition processes including the Engineering Change Request in 4Q FY 2011. ***FY 2012 Plans:*** Perform at-sea trials during 2Q – 3Q FY 2012. Closeout report and procurement decision will occur during 4Q FY 2012.	0.900	-	-
Title: B-2 Stores Management System (SMS) Test Program Initiative (Air Force) ***Description:*** Tests an on-aircraft B-2 SMS diagnostic capability. SMS anomalies involving complex avionics architecture linked through Military Standard (MIL-STD) 1760 interfaces can jeopardize a B-2's ability to support its primary mission. On board SMS diagnostics will test configured weapon station interface serviceability, assess weapon release equipment integrity and troubleshoot end-to-end weapon stores functions. ***FY 2011 Accomplishments:*** Established and demonstrated a test set package, Smart Bomb Rack Assembly, including all interface hardware and associated level-three drawings for follow-on local manufacture. ***FY 2012 Plans:*** Closeout report and procurement decision by 4Q FY 2012.	1.800	-	-
Title: Biological Aerosol Confidence Check Device (Army) ***Description:*** Tests a ruggedized Bio Aerosol Confidence Check Device that will increase operator's confidence that a biological aerosol detection system is working properly. Joint Services will utilize this common device to standardize test methodology, training, and provide confidence to the war-fighter. ***FY 2011 Accomplishments:***	0.500	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Washington Headquarters Services (WHS) contract was awarded and the Joint Biological Point Detection System (JBPDS) delivered. Started intra and inter-variability testing of particle size distribution. ***FY 2012 Plans:*** The Program Manager (PM) will complete intra and inter-variability testing. Once testing is completed, the PM will decide whether to use the JBPDS for the current Joint Biological Point Detector System (JBPDS) and the Joint Portal Shield for the development of the Joint Biological Tactical Detection System (JBTDS).			
Title: Composite Segmented Reflector Antenna for Satellite Communication Systems (Air Force) ***Description:*** Test a light-weight, compact, durable, segmented composite antenna reflector for use in small aperture man-pack satellite communications and other systems, within the X, Ka, and Ku frequency bands. The primary outputs are weight reduction, size reduction, and increased transport advantages over the currently available metallic and coated composite antenna reflectors. ***FY 2011 Accomplishments:*** Conducted structural, environmental, and operational field testing of Ku/Ka-band 60 centimetres reflectors. Conducted field testing of Ku/Ka dishes (United States Special Operations Command (USSOCOM)). Constructed and tested revised petal latching mechanism for new extreme wind load requirements. Continued procurement of x-band assets for integration and field deployment. Fabricated and demonstrated Ku/Ka-band 60 centimetres aperture segmented reflectors, and achieved procurement decision. Over 400 antennas have been fielded to Special Operations units in FY 2011 with a future procurement anticipated to be up to 1000 units per year for the next five years.	0.500	-	-
Title: Conformal Warfighter Wearable Battery Power Source (CWS) (Army) ***Description:*** Test a wearable power source for the soldiers that can be worn in the Improved Outer Tactical Vest or as an attachment, providing flexibility for use as a wearable battery pack power source, which is bullet safe with improved high temperature performance. This Lithium-ion polymer battery uses phase change material that removes heat from the battery pack. ***FY 2011 Accomplishments:*** Conducted ballistic texting with positive results and conducted environmental/military testing. Accomplished an engineering change to move battery to small arms protective inserts (SAPI) plate locations based on user test feedback. Provided first generation Safety Analysis Report. ***FY 2012 Plans:***	0.900	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Complete testing for soldier safety certification, procure 421 additional batteries with chargers for soldier/airman evaluation, close out Defense Acquisition Challenge (DAC) program testing before end of 3Q FY 2012, and continue further testing, using PM funding, for soldier evaluation into Limited Rate Initial Production evaluation.			
Title: Fully Integrated Fire Control Solution for Machine Guns (United States Special Operations Command (USSOCOM)) ***Description:*** Competitively evaluates integrated/modular fire control systems (FCSs) comprised of a family of machine gun day optics, thermal, and night vision devices. Project management (PM) is now pursuing two paths for final configuration: a modular system consisting of accessories that can be operated independently or together; and a sophisticated integrated FCS. The primary outputs and efficiencies to be demonstrated in the project are: (1) improved efficiency of machine gun employment incorporating mounts for FCS/accessory components with ability to quickly activate switches & functions; and (2) avoids RDT&E operations and support costs worth almost $4.500 million. ***FY 2011 Accomplishments:*** Received modular component test articles and conducted suitability and effectiveness testing during 1Q FY 2011. Developed rail interface system for .50 caliber M2 machine gun in 2Q FY 2011. Obtained safety confirmation/Laser Safety Review Board approval during 3Q FY 2011. ***FY 2012 Plans:*** Procure modified test items for integration test and evaluation in 1Q FY 2012. Conduct integration test through 2Q FY2012. Obtain Milestone C decision and fielding and deployment release by 3Q FY2012. Submit closeout report in 4Q FY 2012.	1.800	-	-
Title: Herculite XP Glass for Bombing Hazard Reduction (Air Force) ***Description:*** Tests a new high strength tempered glass which will provide blast and impact protection that is far superior to a traditional annealed or fully tempered glass. Herculite XP provides higher levels of protection, less glass weight, and creates cost efficiencies for Department of Defense's (DOD) barracks, medical facilities and other primary gathering facilities in Afghanistan and Iraq, and other military installations worldwide. ***FY 2011 Accomplishments:*** Completed level of protection testing. Test results led to qualified window designs and specifications for punched and storefront applications of Herculite XP glass.	0.900	-	-
Title: Hostile Fire Aid for the AN/AVR-2B Laser Detecting Set (United States Special Operations Command (USSOCOM)) ***Description:*** Validates new Operational Flight Program (OFP) software for the Army Navy Nomenclature Aviator-2B (AN/AVR-2B) laser detecting set currently fielded on Army rotary wing aircraft. The OFP software will detect hostile small arms and rocket propelled grenade fire events, and alerts the aircrew via existing on-board equipment. Primary outputs and efficiencies to be	0.910	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
demonstrated in the project are improved situational awareness and increased aircraft survivability and to avoid Research, Development, Test, and Evaluation (RDT&E), manufacturing, production, and operations and support costs worth approximately $63.668 million. ***FY 2011 Accomplishments:*** Installed and verified system functionality of an updated AN/AVR-2B A-kit on the Maverick Unmanned Aerial Vehicle (UAV) test platform in 3Q FY 2011. Completed software updates, and conducted algorithms/integration testing in 4Q FY 2011. ***FY 2012 Plans:*** Conduct live fire flight for technical/operational testing during 1Q FY 2012. Complete functional qualification testing and test reports in 2Q FY 2012. Obtain Milestone C decision and submit closeout report in 2Q FY 2012.			
Title: JP-8 Operated Modified Commercial Generator (Army) ***Description:*** Tests Jet Propulsion (JP-8) fueled modified commercial generator sets that are rated at one kilowatt to determine if they can meet US Army electrical and environmental requirements. If successful, benefits would include reduced fuel consumption, reduced weight burden on the war-fighter, and added capability via forward use of power sources. The primary benefit is to field first soldier-portable, logistic fueled, one kilowatt power source for tactical operations. ***FY 2011 Accomplishments:*** Delivered test articles to the Program Manager (PM) during 2Q FY 2011. Testing revealed that the generator needed significant modifications. Conducted edurance testing to ensure robustness. Searched for a contracting vehicle to conduct Electro Magnetic Impulse (EMI) and environmental testing. ***FY 2012 Plans:*** PM plans to complete EMI, environmental, electrical performance, noise level and mechanical testing. Consolidate findings and prepare final closeout report.	0.300	-	-
Title: Lightweight, Reliable, Increased Capacity Magazine for Special Operations Forces Combat Assault Rifle (SCAR) ((United States Special Operations Command (USSOCOM)) ***Description:*** Test a more reliable, lightweight polymer or heat treated hard anodized magazine for the SCAR MK17 (heavy). Once inserted in the weapon, it will prevent outside contaminants, such as sand, from entering the magazine or magazine well. The primary outputs and efficiencies to be demonstrated in the project are a more reliable Mark-17 (MK17) magazine with increased ammunition capacity and to avoid Research, Development, Test, and Evaluation (RDT&E) operations and support costs worth approximately $1.700 million. ***FY 2011 Accomplishments:***	0.500	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Received product samples and performed go/no go testing, which all samples from the original solicitation failed 1Q FY 2011. Canceled solicitation and negotiated with OEM for an improved magazine 2Q FY 2011. Procured OEM improved magazine test articles 3Q FY 2011. ***FY 2012 Plans:*** Deliver 100 production representative test units in 1Q FY 2012. Perform assessment/validation testing and report in 2Q FY 2012. Conduct a user assessment in the current area of responsibility during 3Q FY 2012. Submit closeout in 4Q FY 2012.			
Title: Lightweight Surveillance and Battle Damage Assessment Device (LW-SBDAD) (Army) ***Description:*** Test a lighter, smaller and cheaper alternative to the current binocular. The current M25 Stabilized Binocular is 4.5 pounds (lbs) and has bulky dimensions, which make it non user friendly. If successful, this project will reduce the size and weight by 40 percent and provide a cost savings of 40-60 percent per unit. ***FY 2011 Accomplishments:*** Released market survey during 3Q FY 2011 and completed phase one in 4Q FY 2011 with down-select to three candidates. ***FY 2012 Plans:*** Expect delivery of test articles by the end of 1Q FY 2012. Begin laboratory and operational testing at Aberdeen Proving Ground (APG). Laboratory testing will include Collimation, Resolution, Laser Eye Protection, Focus, and Image Tilt/Parallax testing. Other testing to includes environmental, and Man Power and Personal Integration Evaluations in various combat scenarios. Procurement decision expected in 3Q FY 2012.	1.000	-	-
Title: Low Cost SQS-53 Improved Sonar Acoustic Window (ISAW) (Navy) ***Description:*** Install and test an improved sonar acoustic window (ISAW) for the Army Navy Nomenclature/Sonar-53 (AN/SQS-53). This window will be constructed of a new composite material optimized to meet both structural and acoustic requirements. Benefits to be demonstrated are reduced lifecycle costs, longer service life, simplified maintenance, improved safety for maintenance personnel due to the elimination of the requirement for hyperbaric entry, and reduced environmental impact by introduction of a new marine anti-fouling compound in the design of the window. ***FY 2011 Accomplishments:*** Completed phase two of the sonar electronics groom, which includes light off, calibration, alignment, and layup of the sonar system. This phase will be completed during 2Q FY 2011. Conducted land based proof testing of ISAW prototype in 3Q FY 2011. Completed installation planning in 4Q FY 2011 for the FY 2012 shipboard installation and testing. ***FY 2012 Plans:***	1.570	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Complete test planning during 1Q FY 2012. Install new sonar cables, transducers, and ISAW during 2Q and 3Q FY 2012. At-sea testing of test article and project closeout by 4Q FY 2012.			
Title: Fire Resistant Modular Ghillie Suit and Ghillie Suit Accessory Kit (Army) ***Description:*** The Modular Ghillie Suit (MGSAK) and Ghillie Suit Accessory Kit (GSAK) upgrades provides surveillance units and snipers with a Flame Resistant Base Layer and various camouflage multi-functional materials to construct, repair, and modify GSAKs to meet unique mission and climatic requirements. It also provides multi-protective combat camouflage capabilities. ***FY 2011 Accomplishments:*** Program Manager (PM) completed fielding full systems for sniper schools at Fort Benning, Fort Bragg and Marine Corps Base Quantico for user evaluation. Completed testing to verify the systems met the performance parameters and criteria of the basic Fire Resistance and durability. Completed Operational Testing to validate whether the MGSAK and GSAK met or exceed the durability and reliability requirements of the GSAK and Core Soldier System requirements. ***FY 2012 Plans:*** Procurement decision to be determined by the end of 2Q FY 2012.	0.600	-	-
Title: Next Generation Night Vision Imaging Technology (United States Special Operations Command (USSOCOM)) ***Description:*** Validates the use of an electron bombarded active pixel sensor (EBAPS) low-light camera, in place of image intensification (I2) tubes in visual augmentation systems. The EBAPS camera will be integrated into a handheld night vision system/platform to conduct project testing. The primary outputs and efficiencies to be demonstrated in the project are: (1) improved resolution, reduced power, increased detection and identification ranges, better combat security; and (2) avoids RDT&E and production costs worth approximately $1.500 million. ***FY 2011 Accomplishments:*** Conducted critical design review during 2Q FY 2011. Received integrated test article and analyzed completed internal vendor test data during 4Q FY 2011. ***FY 2012 Plans:*** Conduct combined developmental and operational testing through 1Q FY 2012. Publish test reports, submit production decision documentation, and complete closeout report in 2Q FY 2012.	0.500	-	-
Title: Package on Package Technology for Aviation Radio Communications-210 (ARC-210) (Navy) ***Description:*** Package on Package (POP) technology is a three dimensional stacking of two or more Ball Grid Array (BGA) microelectronic packages that enables increased capabilities and functionalities in limited space. POP significantly enables	0.500	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
capability and functionality growth in the ARC-210 Tactical radio. The primary outputs are increased interoperability and mission flexibility. ***FY 2011 Accomplishments:*** Completed development testing in 3Q FY 2011. Completed Reliability Testing and Procurement decision will be determined by 4Q FY 2011. ***FY 2012 Plans:*** Submit project close-out report during 1Q FY 2012. Share project results to help benefit other projects/programs by 1Q FY 2012. Look for early opportunity to implement Class 1 Engineering Change Proposal (ECP), processor and memory stack combination into ARC-210 Gen 5 production.			
Title: Personnel Transport Module (PTM) for Landing Craft Air Cushion (Navy) ***Description:*** Tests a personnel transport module (PTM) for use aboard the Landing Craft Air Cushion (LCAC). The PTM, constructed of a light weight yet durable composite material, will enable the Navy to deploy up to 180 seated combat-ready Marines or 54 litter-borne medical evacuees in a single LCAC sortie. The primary outputs are resolution of severe deficiencies of the current design, which includes reduced assembly time and improved ventilation to increase habitability and usage, and delivery of a PTM that provides increased durability and reduced maintenance and life cycle costs. ***FY 2011 Accomplishments:*** Completed successful fire, smoke & toxicity (FST) testing for vendor WebCore in 2Q FY 2011. Conducted FST testing for vendor Triton Systems in 2Q FY 2011. Received Technical Warrant Holder (TWH) FST testing approval to proceed with re-test of vendor Triton Systems in 3Q FY 2011. Conducted FST testing for vendor Triton Systems 4Q FY 2011. Final Design Review/Factory Testing occurred 4Q FY 2011. ***FY 2012 Plans:*** Receive PTM test article from WebCore during 1Q FY 2012. Receive TWH testing approval of improved design for vendor Triton Systems during 1Q FY 2012. Conduct FST testing for vendor Triton Systems in 2Q FY 2012. Final Design Review/Factory Testing of test article from vendor Triton Systems in 3Q FY 2012. Receive PTM test article from vendor Triton and complete operational tests for both vendors during 4Q FY 2012. Initiate procurement decision and project close-out report during 4Q FY 2012.	1.000	-	-
Title: Pyrophoric Decoy Second Source (Navy) ***Description:*** Pyrophoric Decoy Second Source tests a second source for Military Jamming Unit (MJU-49/B) and (MJU-64/B) pyrophoric decoys. Currently, only one source for the flare material exists; however, this effort will establish and qualify a second source to manufacture these items. The primary outputs are a second source for MJU-64/B and the MJU-49/B pyrophoric decoys	1.000	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
for the US Navy and other Services, decreased unit costs, and ensure a steady supply of decoys in the event of a production disruption or increased demand. ***FY 2011 Accomplishments:*** Contracted for developmental test articles during 3Q FY 2011. Completed function evaluation of 3 groups of developmental test articles in 4Q FY 2011. Held preliminary design review during 4Q FY 2011. ***FY 2012 Plans:*** Conduct flight function test during 1Q FY 2012. Commence development tests in 2Q FY 2012. Initiate qualification tests during 3Q FY 2012. Procurement decision and complete project close-out report by the end 4Q FY 2012.			
Title: Shipboard Antenna Radar (Navy) ***Description:*** Shipboard Antenna Radar tests a shipboard antenna to provide improved performance for high frequency (HF) direction finding (DF) antennas (improved threat detection), while reducing Radar Cross Section (RCS) and Operating and Support (O&S) costs. This antenna would replace the current Antenna Shipboard (AS-3202) (1960's technology) antennas which are a part of the suite of antennas for the Ship's Signal Exploitation Equipment (SSEE) program of record. ***FY 2011 Accomplishments:*** Prepared contract documentation for test articles contract during 3Q - 4Q FY 2011. ***FY 2012 Plans:*** Conduct acceptance test and documentation in 2Q FY 2012. Conduct environmental qualification testing in 2Q – 3Q FY 2012. Procurement decision and complete project closeout report during 4Q FY 2012.	1.000	-	-
Title: Soldier Power Manager (Army) ***Description:*** Soldier Power Manager (SPM) is a small "Power Universalizers" that allows soldiers to charge any military rechargeable battery from a variety of sources, and then power the entire kit from that single battery. SPM drastically reduces the number and variety of primary batteries needed. This project significantly provides field testing of the SPMs, already in lab and limited field trials. ***FY 2011 Accomplishments:*** Awarded contract in 4Q FY 2011, and delivered test articles. ***FY 2012 Plans:*** Vendor will begin functional performance testing of SPMs at their facility. Communications-Electronics research, Development and Engineering Center (CERDEC) will begin laboratory functional performance testing of three SPM units at their facility at	0.800	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Aberdeen Proving Ground. They will also support soldier evaluation of SPM units at the Army Expeditionary Warrior Experiment (AEWE) in Fort Benning and support soldier evaluation of SPM units at the Joint Readiness Training Center (JTRC) in Fort Polk.			
Title: Special Operations Forces (SOF) Forward Trauma Management Set (FTMS) (USSOCOM) ***Description:*** Evaluate rapidly deployable Medical Emergency Response Facility (MERF) modular equipment used to stabilize and sustain casualties with life saving trauma care for SOF operating in remote areas where casualty evacuation (CASEVAC) to a Level II or III medical facility is not available. The MERF subsystems are modular, resuscitative surgical intervention that is operationally adaptable vice operationally specific. The primary outputs and efficiencies to be demonstrated in the project are surgical care and trauma life support equal to tactical combat casualty care guidelines and within the capability of assigned SOF medical and non-medical personnel and to avoid Research, Development, Testing, and Evaluation (RDT&E), procurement, and operations and support costs worth $76.660 million. ***FY 2011 Accomplishments:*** Received long lead test articles during 1Q FY 2011. Completed the airworthiness testing of selected components, and conducted in-theater combat evaluation of FTMS items in Afghanistan through 2Q FY 2011. Received Food and Drug Administration (FDA) approval of required items in 2Q FY 2011. Updated Special Ops Surgical Team tactics, techniques, and procedures, as well as establish inventory controls of FTMS equipment in 4Q FY 2011. ***FY 2012 Plans:*** Complete military user assessment through 1Q FY 2012. Conduct the final airworthiness testing on FTMS components in 1Q FY 2012. Complete final test reports and closeout report by the end of 2Q FY 2012.	0.500	-	-
Title: Tactical Vehicle Battery – Replacement (TVB-R) (Navy) ***Description:*** Tactical Vehicle Battery tests battery replacement that has a higher energy density, comparable power capability, and greater deep-discharge cycle life compared to the current lead acid battery. The primary outputs are drop in replacement for lead acid batteries, and increase energy density ranging from three to five times over lead acid. ***FY 2011 Accomplishments:*** Completed test planning during 2Q FY 2011. Received Phase I test articles from one of the two vendors during 3Q FY 2011. Conducted Phase I comparative testing in 3Q FY 2011. ***FY 2012 Plans:*** Receive the Phase I test articles from the second vendor at the middle of 1Q FY 2012. Complete Phase I Comparative Testing near the end of 1Q FY 2012. Complete data analysis and evaluation down select of the Phase I test articles at the end of 1Q FY 2012. Exercise the Contract Option for Phase II test articles at the beginning of 2Q FY 2012. Receive Phase II test articles at the	0.700	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
end of 2Q FY 2012. Initiate and complete Phase II Performance Testing during 3Q FY 2012. Initiate and complete Phase II Field User Evaluation during 4Q FY 2012. ***FY 2013 Plans:*** Finalize technical test report, await procurement decision, and submit project closeout report by the end of 1Q FY 2013.			
Title: Thermal Fire Control for the Multi-role Anti-armor Anti-personnel Weapon System (MAAWS) (United States Special Operations Command (USSOCOM)) ***Description:*** Validates software upgrades to the Army Navy Nomenclature/Passive (AN/PAS13) Thermal Weapons Sight to provide target acquisition for all current and future 84mm ammunition used in the M3 Carl Gustaf MAAWS. AN/PAS13 fire control system (FCS) for crew served weapons is lightweight, compact, with 3X electronic zoom, and contains programmable reticules and thermal imaging technology. The primary outputs and efficiencies to be demonstrated in the project are an increase in battlefield lethality during day/night, in smoke and fog environmental conditions; while avoiding Research, Development, Test, and Evaluation (RDT&E), manufacturing, production, and operations and support costs worth approximately $36.000 million. ***FY 2011 Accomplishments:*** Modified current AN/PAS13 contract, and initiated FCS mounting bracket development in 3Q FY 2011. Original equipment manufacture conducted internal research and development, and vendor completed internal software integration testing through 4Q FY 2011. ***FY 2012 Plans:*** Complete mounting bracket development and user test in 1Q FY 2012. Complete contract modification and receive test articles by the end of Q FY 2012. Complete government software qualification testing in 1Q FY 2012. Obtain safety certification, and conduct combined developmental and operational testing during 2Q FY 2012. Publish test reports and submit closeout report by the end of 3Q FY 2012.	0.951	-	-
Title: Worldwide Ruggedized Power Supply (WRPS) (Navy) ***Description:*** WRPS tests multiple power supplies that will provide the capability to convert 110/220 Volt Alternating Current (VAC) and 50/60 Hertz (Hz) to Direct Current (DC) power. This enables the operation and repair of communications, electronics, medical equipment and weapon systems from any power grid, and from anywhere in the world. The primary outputs are a power supply that is ruggedized, conversion from VAC and Hz to DC power, and provide output currents of 0 to 60 amps while weighing less than 50 pounds. ***FY 2011 Accomplishments:***	0.900	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604051D8Z: *Defense Acquisition Challenge (DAC) Program*	PROJECT P051: *Defense Acquisition Challenge Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiated contract preparation at the end of 1Q FY 2011. Received initial DAC funding during 3Q FY 2011. Initiated test planning at the end of 4Q FY 2011. ***FY 2012 Plans:*** Award test article contract at the end of 1Q FY 2012. Fabrication of test articles during 1Q – 2Q FY 2012. Receive test articles at the middle of 2Q FY 2012. Conduct performance testing during 2Q – 3Q FY 2012. Initiate field user evaluation at the end 3Q FY 2012 and complete the effort during 4Q FY 2012. Finalize technical test report, procurement decision, and project closeout Report by the end of 4Q FY 2012.			
Title: Light Weight Tow (LWT) Torpedo Defense System (Navy) ***Description:*** LWT will demonstrate an innovative modular towed countermeasure that provides a torpedo defense capability and is optimized for operations in areas not covered by existing systems. Although primarily intended for the Littoral Combat Ship, LWT enables the installation of a torpedo defense system on any vessel requiring the capability, as its operation requires minimal space, weight, and manning. ***FY 2011 Accomplishments:*** Established contract for purchase of LWT hardware in 3Q FY 2011. Produced LWT system performance specifications sufficient to procure hardware 4Q FY 2011. ***FY 2012 Plans:*** Recieve two LWT systems by the end of 1Q FY 2012. Perform land based test and evaluation, conduct in-water component level testing, and integrate hardware and software 2Q FY 2012. Complete post-test analysis and report generation 3Q FY 2012. Complete project closeout and make procurement decision during 4Q FY 2012.	1.339	-	-
Title: Improved Flash Hider for M2HB .50 Cal Weapons (USSOCOM) ***Description:*** Competitively evaluate improved flash hiders for .50 Caliber machine guns. The improved flash hider would reduce the enemies' ability to detect the weapon, and prevent operator's loss of night vision caused by the muzzle flash. The primary outputs and efficiencies to be demonstrated in the project are to provide a new war fighter capability applicable to current operational environment and to avoid Research, Development, Testing, and Evaluation (RDT&E), procurement, and operations and support costs worth approximately $13.700 million. ***FY 2011 Accomplishments:*** Completed operational/user assessment test and reports through 2Q FY 2011. Obtained production decision, fielding and deployment release in 3Q FY 2011. Completed project closeout report by the end of 4Q FY 2011.	-	-	-
Title: Improved Viper Strike Precision Guided Munitions (PGM) (USSOCOM)	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604051D8Z: *Defense Acquisition Challenge (DAC) Program*	PROJECT P051: *Defense Acquisition Challenge Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Description: Validates a more capable semi-active laser that increases the field of view of Viper Strike PGM to strike fleeing targets. The proposed Alternate Semi-Active Laser (ASAL) has twice the field of view of the current seeker. The primary outputs and efficiencies to be demonstrated in the project are an improved operational attack capability while reducing unit cost and increasing the production rate of the Viper Strike missile; while also avoiding RDT&E, procurement, and operations and support costs worth $106.936 million. ***FY 2011 Accomplishments:*** Received follow-on ASAL Flight Test Articles in 2Q FY 2011, conducted end-to-end system live fire testing at China Lake Test Range in 3Q FY 2011, and fielded ASAL capability to current area of operational responsibility through 4Q FY 2011. ***FY 2012 Plans:*** Conduct flight test of final battle management software for system fielding, and submit closeout report by the end of 2Q FY 2012.			
Title: Tactical Beyond-Line-of-Sight (TBLOS) Communications Extension System (USSOCOM) ***Description:*** Validates a man-portable, TBLOS troposcatter terminal that increases existing range of the tactical network data throughput for 16 Megabytes per second (Mbps) links from 22 kilometers (KM) line-of-sight, to 44 KM, while reducing/eliminating vulnerable relay sights. The primary outputs and efficiencies to be demonstrated in the project are easy setup, lower cost, TBLOS network data throughput and to also avoid Research, Development, Test, and Evaluation (RDT&E), production and operations and support costs worth approximately $13.500 million. ***FY 2011 Accomplishments:*** Performed operational testing/user assessment and reporting through 3Q FY 2011. Obtained a system safety certification in 4Q FY 2011. ***FY 2012 Plans:*** Obtain additional and modified test assets and deploy TBLOS test articles to current operational area for user assessment in 2Q FY 2012. Complete a combat assessment and submit a closeout report by the end of 3Q FY 2012.	-	-	-
Title: FY 2012 Focal Areas and New Starts ***Description:*** Investment decisions are made during the execution years in response to Service/US Special Operations Command (USSOCOM) and other government organizations' (OGO) requirements and as new threats emerge or new opportunities are presented. ***FY 2012 Plans:***	-	24.836	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604051D8Z: *Defense Acquisition Challenge (DAC) Program*	PROJECT P051: *Defense Acquisition Challenge Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
In FY 2012, the DAC Program will invest in Service/USSOCOM/OGO projects that will focus in the following operational areas such as: Forward Operating Base Protection; Hostile Fire/Air Crew Protection (small arms fire and Man Portable Air Defense System); Cyber Defense; Autonomous and Portable Air, Ground and Underwater Systems; Enhanced Soldier Protection; Improved Power Sources; Improved Logistics and Equipment Reset; and any other focus areas that benefit the warfighter.			
Accomplishments/Planned Programs Subtotals	22.270	24.836	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

The Acquisition Strategy for Defense Acquisition Challenge (DAC) Program is as outlined in Title Ten. DAC provides opportunities for the increased introduction of innovative and cost-saving technology in acquisition programs of the DoD. DAC funding is used to fund testing of commercial and non-developmental items that could result in improvements in performance, affordability, manufacturability, or operational capability of an existing acquisition program. It is expected that, should testing be successful, the cognizant acquisition program of record will procure.

E. Performance Metrics

Strategic Objective 4-2D. The title of this objective is "Speed technology transition focused on war-fighting needs" and the metrics for this objective is to transition 30 percent of completing demonstrations program per year. From program inception in 2003 until 2010, the Office of Secretary of Defense has initiated 151 projects; 96 projects have been completed to date; 69 met Service or Agency testing requirements and 49 led to procurements with technology currently in use by our warfighters in Iraq, Afghanistan, or at U.S. training facilities. The FY 2011 DAC will have a transition rate of 80 percent for completed projects, exceeds the objective of 30 percent for demonstration programs (Strategic Objective 4-2D, Office of the Under Secretary of Defense, Acquisition, Technology & Logistics (OUSD (AT&L)). FY 2012 we anticipate the majority of our FY 2011 projects to complete successfully and transition to the warfighter.