

NOT FOR PUBLICATION UNTIL RELEASED BY THE
HOUSE ARMED SERVICES COMMITTEE
TERRORISM, UNCONVENTIONAL THREATS AND
CAPABILITIES SUBCOMMITTEE

STATEMENT OF
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BEFORE THE
TERRORISM, UNCONVENTIONAL THREATS
AND CAPABILITIES SUBCOMMITTEE
OF THE
HOUSE ARMED SERVICES COMMITTEE
ON
DEFENSE SCIENCE & TECHNOLOGY POLICY AND
THE FISCAL YEAR 2007 BUDGET REQUEST

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Introduction

This is my first opportunity to testify as the Chief of Naval Research and I am honored to be here. I want to thank you for your support of Naval Science and Technology and the Navy and Marine Corps team.

Our task within the naval S&T community is to enable revolutionary Naval operational concepts that support and advance the vision for the Navy and Marine Corps as laid out by the Secretary of the Navy, Chief of Naval Operations and Commandant of the Marine Corps. It is within this vision of a force that is expeditionary, distributed, persistent, forward deployed and capable of engaging a peer competitor in a major combat operation or various threats in the global war on terror – and win decisively - that we operate!

We place particular emphasis on operations of the Joint Warfighting Team in blue, green, and brown water environments. Leveraging innovative concepts, advanced technologies, and new business practices to increase war fighting effectiveness, we will use enhanced networked joint Sea Basing to operate without restriction.

As Secretary Winter has stated, “The enduring role as our Nation’s sea-based force will require that the Navy and Marine Corps Team provide access, fight and win, and continually transform.” ONR’s S&T portfolio is a critical element of the Navy’s transformation strategy

S&T Overview

To do this, our S&T enterprise must focus primarily on developing not only tomorrow’s Navy/Marine Corps but also the one after that, yet be nimble enough to rapidly address critical problems facing today’s fleet, such as IEDs and affordability.

To accomplish this we must do three things exceptionally well – First, we must focus our precious dollars on those areas that best support the Navy/Marine Corps vision of the future and which will provide the biggest payoff. Second, we must be innovative in our thinking, in our science and in our processes for executing that science – every dollar spent on “overhead functions” is a dollar not spent on science and technology. Finally, we must continue to improve our ability to rapidly transition the science and technology into the acquisition programs and out into the Fleet.

Discovery & Invention

The President’s Fiscal Year 2007 Budget requests \$1.599 billion for a S&T portfolio that accomplishes what I have just described. Those funds are focused in 18 core S&T areas that include air platforms, anti-submarine warfare, battle space environments (particularly the ocean), biomedical, counter IEDs, expeditionary operations, experimentation, force protection, sea and ground vehicles, human systems, information systems, marine life sciences, advanced materials, mine warfare, naval research enterprise, sensors and electronics and electronic warfare, space platforms, and weapons.

We execute our 6.1 thru 6.3 funds as a continuum of S&T development, breaking them into three key areas – Discovery and Invention (D&I), Innovative Naval Prototypes (INP) and Future Naval Capabilities (FNC).

Discovery and Invention is our basic research and early 6.2 work that focuses on areas in which we have unique naval needs or support capabilities that we consider to be essential to the naval mission. We believe that a strong investment in this area is necessary to ensure we can maintain our technical advantages in the Navy after next. Naval basic research is 29% of the total DoD basic research investment and when coupled with early 6.2 work brings our Discovery and Invention investment to over \$600M. We allocate that money across the core research areas through a rigorous portfolio analysis process that weighs relevance, impact to the Navy/Marine Corps mission, innovation and performance among other factors to select the best mix of research areas and projects.

One of the most difficult challenges of any research organization is to efficiently transition the most effective science and technology efforts from Discovery and Invention into advanced development, through the acquisition process and into the hands of the customers – in our case the fleet operators. One of our highest priorities is to open that spigot so that deployable S&T products transition more frequently, more rapidly and with less risk.

We can no longer afford for the scientist and science manager to emerge from their lab and try to find an end user of the fruits of their research. The science and acquisition communities need to be engaged long before that.

We need to build a regular, routine early partnership between the scientists and the acquisition program managers. They need to look over each other's shoulder every step of the way. It is important for the acquisition managers to understand what is coming in terms of capabilities and technologies and to determine how they can best fit into their program of record. It is equally important for the S&T manager to understand the factors driving the acquisition managers, and be particularly sensitive to when the acquisition manager is best able to handle new technologies and when the window for inclusion of new ideas is closing. Often that relationship is established too late in either process for us to be as effective as we could be.

What ends up in the fleet are those systems that acquisition managers put under contract. No matter how good the idea, if they don't put it under contract, it doesn't show up in the fleet. If the S&T development isn't aligned with a program manager's strategy and fails to appear in his or her acquisition plan, that technology doesn't get into the fleet, and all that S&T effort goes for nothing.

We have made transition a cornerstone of our Innovative Naval Prototypes (INP) and Future Naval Capabilities (FNC) programs. These focused efforts strive to move the development of focused S&T efforts faster, as well as improve the transition of that S&T into the acquisition programs.

Innovative Naval Prototypes:

Innovative Naval Prototypes are disruptive technologies that, because of high risk or radical departure from established requirements and concepts of operation, are unlikely to survive without top leadership endorsement. INP programs invest in S&T projects intended to achieve a level of maturity suitable for transition to an acquisition program within 4-8 years. INPs make significant investment in projects with high technological risks, but which offer the prospect, if we are successful, of being revolutionary “game changers” in Navy and Marine Corps warfighting capabilities.

In 2005, ONR awarded contracts for the first INP, the electromagnetic railgun. An important capability in support of the Marine Corps Distributed Operations concept, our goal is to develop a prototype gun system that can continuously deliver precision rounds ashore from ships more than 300 nautical miles at sea.

The EM railgun system will use very high current to generate electromagnetic forces which launch projectiles at speeds greater than Mach 7. Trajectories will take projectiles outside earth’s atmosphere and, by reducing transit through the thicker atmosphere nearer the earth’s surface, enable them to strike targets at velocities greater than Mach 5.

As an example of DoD service and agency cooperation, ONR is collaborating with the Army on the EM railgun in order to form a consortium for railgun bore life development. A Memorandum of Understanding (MOA) is about to be signed by ASAALT, ASN(RD&A), and DARPA, and we have already held our first tech transfer/coordination workshop.

In addition to the railgun prototype, three other INPs were approved by the Naval S&T corporate board which will focus on persistent littoral undersea surveillance, enhanced capability for joint sea basing and ship-to-objective maneuver, and improving naval tactical use of space. The FY07 INP investment is \$87M.

Even though these projects will remain in S&T for 4-8 more years, we have already identified the acquisition programs that will implement these technologies and will have the deputy project manager of the S&T project be one of the potential acquisition program managers to ensure a seamless and efficient transition when the technology is ready.

Future Naval Capabilities:

Future Naval Capabilities focus on requirements-driven, transition oriented thrust areas. FNC objectives are to provide enabling capabilities to fill gaps in Naval Power 21 warfighting and enterprise capabilities identified by OPNAV and Marine Corps Combat Development Command requirements analysis. The FNC program provides technology solutions by developing S&T products that deliver measurable war fighting improvements to acquisition programs within a three to five year window.

As opposed to the high-risk/high-payoff INP projects, FNCs involve near-term/lesser-risk programs. Approximately two-thirds of our Advanced Technology Development (6.3) funds and about 40% of our late stage Exploratory Development (6.2) funds are invested in the FNCs. The FNC process delivers maturing technology to acquisition program managers for timely

incorporation into platforms, weapons, sensors, and process improvements. Each of the current FNC focus areas is planned and reviewed by an integrated team with representation from the Office of Naval Research, a Program Executive Office (PEO), the Navy and Marine Corps requirements community, and the Fleet/Force user community. This gives us constant validation of the relevance of the technologies, and strong buy-in and commitment to transition plans.

There are currently 142 FNC projects addressing 34 capability gaps. Examples of a few FNC areas of interest include:

- **Autonomous Operations** – This program is pursuing a dramatic increase in the performance and affordability of Naval air, surface, ground, and underwater autonomous vehicles—unmanned systems able to operate with a minimum of human intervention and oversight. The results of these efforts will allow us to operate effectively in what would otherwise be denied areas.
- **Fleet/Force Protection** – We have very capable ships, aircraft, and ground combat vehicles. It's our business to ensure that they don't fall to the sorts of asymmetric threats our enemies pose. We are focused on developing effective organic means of protection: weapons, sensors, countermeasures, stealth and damage control.
- **Knowledge Superiority and Assurance** – Information technology is as crucial to naval superiority as it is to any other aspect of contemporary life. This program is developing our ability to distribute integrated information in a dynamic network with high connectivity and interoperability. It will ensure knowledge superiority, common situational understanding, and increased speed of command.
- **Littoral Anti Submarine Warfare** – This program is part of our shift in emphasis to littoral, expeditionary operations. The antisubmarine warfare challenge in coastal waters is a tough one so, we are focusing scientific efforts on enhancing our ability to detect, track, classify, and engage enemy submarines by using a layered tactical ASW approach. Our objective is to eventually understand, predict and possibly manipulate the environment faster than our enemy can.
- **Littoral Combat and Power Projection** - This FNC focuses on deploying uniquely capable combat and logistics systems necessary to deploy and sustain the Fleet and the Force without building up a large logistical infrastructure ashore.
- **Missile Defense** – This program is focused on technology enabling and supporting lethal engagements of theater missiles, manned and unmanned aircraft at extended ranges in defense of naval forces and assets afloat and ashore. Products being worked will offer ways to expand the battlespace rapidly, identify contacts accurately, and engage threats effectively and efficiently.
- **Organic Sea Mine Countermeasures** – Because they are cheap, and able to seed the battle space with a menace far out of proportion to their numbers, mines have been and will continue to be deployed against us by terrorists and their state sponsors. We're working to give our forces an organic—that is to say, an inherent—and stand-off ability

to detect, characterize, and neutralize mines wherever they may be encountered. This FNC has transitioned several important products. One of them, the REMUS autonomous underwater vehicle was used in Operation Iraqi Freedom where it helped clear the harbor approaches to speed supplies to troops. REMUS emerged from a basic oceanographic research program—another piece of evidence that overnight successes are long in preparation.

- **Total Ownership Cost** – We are focused on advanced design and manufacturing processes to significantly decrease the cost of buying, operating, and maintaining Navy systems while promoting increased system readiness. We are working to reduce total lifecycle costs during design and manufacturing as well as increase savings realized from reduced manning and better environmental compliance.

Transition of products from S&T to acquisition programs is a key objective of the FNC program. In FY05 we planned 30 projects to transition. 28 projects met their technical transition goals and 24 of those projects had transition funding and transition agreements in place to support transitions. Of the four that did not, in most instances the acquisition program manager selected an alternative technology solution.

ONR plans to deliver 28 projects in FY 06, including automated warehouse and material movement technologies, enhanced detection of threats in port, the ability to engage moving land and sea surface targets (including light armored vehicles), and 360-degree antennas that integrate multi-band communications and airborne relay of information.

58 additional projects that are scheduled to deliver in FY 07 include more fuel-efficient light-weight turbine engines, radios that reduce human involvement in network control and improve communications, real-time long-range air defense combat ID, enhanced mine detection, better sensors, and reduced delay from target acquisition to engagement.

Current S&T Program Highlights:

A wide range of S&T projects are either entering the fleet or are poised to do so within a short time. Examples of some of those efforts include:

Improvised Explosive Devices:

Nowhere is the science and acquisition partnership more important than Counter IED efforts currently underway. Working very closely with the Joint IED program, we have initiated efforts to address the long term threat posed by IEDs. Our primary goal is to examine the IED “delivery/kill chain” to develop systematic countermeasures along the entire chain, not just at the device.

This involves funding a variety of IED prediction efforts involving the dynamics of terrorist movements, analysis of human activity associated with placement, uncovering IED support networks, tracking IED factory locations and events, IED bio-forensic profiling for tracing place of origin, and dynamic analysis of suicide bombings.

In FY 06, the Office of Naval Research (ONR) and the Naval Research Laboratory (NRL) together expect to fund efforts in basic and applied research across the five IED “kill chain” elements: Predict, Detect, Prevent, Neutralize, and Mitigate. In FY05 we issued our initial Broad Area Announcement for this effort, receiving 435 white papers, with 41 full proposals requested and 18 being funded.

The goals of the Counter-IED Program are to establish and nurture a multidisciplinary counter-IED S&T community. We are committed to ensure research complementary to other DoD and U.S. efforts and to foster collaboration, wherever possible, with our allies in the Global War on Terror.

First and foremost, ONR is closely integrated with the Joint IED Defeat Organization (JIEDDO), with ONR’s Technical Director and Chief Scientist serving as the Chair of the JIEDDO Joint Laboratory Board. The mission of the Joint Laboratory Board is to coordinate, synchronize and sponsor mid and long-term research, development, science, and technology that contribute to IED defeat. Through the Joint Lab Board, Naval S&T efforts involve seeking out and assessing IED defeat initiatives, integrating S&T with operational and intelligence analysis to drive future development, engaging the best minds and program developers to address Joint and Coalition Forces’ capability gaps, and building strong relationships with S&T communities throughout DoD, government, academia, and internationally. This allows us to partner with groups such as:

- Director, Office of Science and Technology Policy
- Director, Defense Research and Engineering
- Defense Threat Reduction Agency
- Department of Homeland Security
- Department of State
- DOE – Laboratory Coalition
- Army and Air Force Research Organizations
- National Academy of Engineering
- National Science Foundation
- UK Ministry of Defence and Home Office
- UK Royal Academy of Engineering
- Australia Defence Science and Technology Office
- Russian National Academy and Institutes

The Counter-IED projects sponsored by ONR include development of non-contact sensor systems that can detect a broader range of explosives. ONR is also working in computational heuristics, validation methods, and dynamic cultural preparation of the battlespace for vastly improved and flexible prediction methods. These projects anticipate future threats, as well as put us in a position to be responsive as conditions change.

Examples of near-term IED program initiatives include the Marine Corps Advanced Technology Development efforts to neutralize IEDs through a variety of countermeasures. Warfighter Protection Advanced Technology Development efforts include modeling the human torso in a

thermobaric blast environment, modeling the physical and cognitive effects of blast exposure and conditions arising from traumatic brain injury.

Mid-term IED program efforts include Force Protection Applied Research to improve warfighter extremity protection, explosive sensors using engineered proteins, and multifunction toxin decontamination coatings. Common Picture Applied Research is working to provide mobility in adaptive sensor networks, develop an automated face recognition system, and provide dynamic network analysis for disrupting terrorist networks. We have Warfighter Sustainment Applied Research efforts to enhance head and neck protection and develop a microarray-based environmental surveillance system. Radio Frequency Systems Applied Research is developing advanced wireless communications and communications-specific emitter identification.

Expeditionary Operations:

Dragon Runner, is a concept demonstrator employing advanced robotic technologies for a tactical unmanned ground vehicle. Developed in conjunction with the Marine Corps Warfighting Lab, *Dragon Runner* has transitioned to the Joint Robotics Programs Office, for further development and fielding. Dragon Runner is an invertible, tossable, remotely operated ground vehicle that gives the small unit the ability to “see around the corner” with real time imagery, and the capability to carry an array of sensor packages, as well as lethal payloads.

Marine Corps amphibious units in a littoral or urban environment are highly susceptible to short-range electro-optically guided munitions. In January 2006, we field-tested a Multi-function Electro Optical System (MEOS) that will automatically detect multiple optical systems, including a direct view optical sight from an actual anti-tank guided munition, at a range of 250 meters using an eye-safe infrared laser.

Similar threats led to development of the Electronic Warfare Integrated System for Small Platforms (EWISSP), to provide a fully automated threat detection and countermeasure system for the Marine Corps Expeditionary Fighting Vehicle (EFV). Final concept demonstration aboard an EFV will be performed in FY 07, with management transferred to the Direct Reporting Program Manager Advanced Amphibious Assault in FY 08.

In addition, cooperative efforts with the Army include the use of high fidelity dynamic, thermal and structural analyses, and application of advanced materials to develop prototype lightweight mortar systems (30-40% lighter than the current weight) with 81mm and 60mm mortar tubes, base plates, and bipod assemblies. Previous work in this area included application to the Lightweight 155 Howitzer.

ONR has signed a MOU with the Army’s Future Combat System (FCS) PM Unit of Action Technologies for development of technologies in support of the FCS and Marine Corps MAGTF Expeditionary Family of Fighting Vehicles (MEFFV). ONR collaborates with the Army Research Lab on a number of Maneuver programs including Survivability Systems Materials program evaluations, Electromagnetic armor development (co-funded by Army and USMC), non-explosive reactive armor development, shock mitigating seats, and the ULTRA Armored Patrol Vehicle.

Other examples of collaboration include the Army Future Tactical Truck System ACTD (FTTS ACTD): a Joint service ACTD where ONR is providing funding, technical support, and participates in program reviews and source selections in support of future ground platforms such as the USMC Combat Tactical Vehicle program. Four Army FTTS contractors currently perform conceptual design excursions to address JLTV requirements.

Additional examples of cooperation include work on Joint Explosive Resistant Coating ACTD, Cognitive Aided Technology – Marine (through an MOU with DARPA), Transparent Urban Structures (with Army and DARPA), Advanced Displays (OLED) with Army, Gunslinger as an OSD ACTD, RST-V with DARPA, Active RPG Defense with DARPA and the Army, and in collaboration with DARPA's Cognitive Assessment Task Management (CAT-M) Program.

Ocean Battlespace Sensing:

Ocean sensing is a critical component of littoral warfare and the focus of our Littoral ASW Multistatic Project (LAMP) for submarine detection and localization in shallow to deep water. LAMP includes development of Compact Deployable Multistatic Sources and Receivers, Coherent Waveform Processing, and Over the Horizon Communications.

LAMP will reduce flight hours and mission costs for Military Patrol Aircraft, as well as enhance reliability with field-level performance equivalent to the Extended Echo Ranging and Improved Extended Echo Ranging systems. It supports the requirement for a rapidly deployable distributed system for a transiting Battle Group.

Sea Warfare and Weapons:

As a result of the terror attack on DDG 67, *USS Cole*, Explosive Resistant Coatings have been a critical focus for our research efforts. With platforms ranging from HMMWVs to ships, we have developed and demonstrated blast and ballistic protection capabilities, with potential application to retrofit armor systems and reduce construction weight.

We partnered with industry in development of the Superconducting AC Synchronous Motor, a high power density, lightweight advanced 36.5 MW propulsion motor and drive system suitable for possible Naval application. The potential payoff is reduced weight and volume for a ship electric propulsion system, increased survivability, and fuel savings. We expect to begin initial electrical load testing in late FY 06

In addition, development of an “in-flight twist” Reconfigurable Rotor Blade has the potential payoff of affordably increasing payload and mission radius. With reduced fuel cost and weight removal, this will enable the aviation community to develop new and enhanced mission profiles for rotary aircraft – including the V-22 *Osprey*.

Warfighter Performance:

Efforts to enhance and sustain warfighter performance address challenges ranging from medical care to training environments. FY 06 accomplishments include developing Virtual Reality Therapy scenarios to treat acute Post Traumatic Stress Disorder, hearing protection up to 47dB, the QuickClot Advanced Clotting Sponge, and transition of Agile Laser Eye Protection to the Naval Air Systems Command.

ONR has teamed with the Army Medical Research and Material Command to develop a capability to safely transport and provide continuous care for casualties throughout all levels of transport. Current technology limitations include the lack of ability to monitor patients and safely adjust delivery of therapeutics and the lack of an integrated system to provide closed loop delivery of life support. The collaborative effort is intended to develop a closed loop control of fluid, ventilation and oxygen with FDA approval of the resulting integrated life support system.

Also in collaboration with the Army Medical Research and Material Command is the effort to identify products that will attenuate physiologic injury from hemorrhage and resuscitation. Success will result in products and guidelines to increase the survival rates of far forward personnel.

ONR is engaged collaboratively with the Army to develop an Integrated Whole Person Assessment which would integrate a set of five tools for whole person assessment which will significantly reduce early attrition from service careers by improving job satisfaction, while providing a monitoring and forecasting system for factors that influence career intentions and decisions.

In addition, we have conducted the initial deployment of the Network Centric Interactive Multi-Sensor Analysis Training (IMAT) ASW Training and Performance Support System – providing integrated training, planning, operations, and feedback for multi-sensor, multi-platform ASW. This is a component of the ASW portion of Composeable FORCENet systems currently in use at CTF 74 Theater ASW Operations Center, and aboard CVN-76, *USS Ronald Reagan*.

Air Warfare and Weapons:

Air war power projection includes research requirements focusing on high speed propulsion and advanced weapon technologies, including rocket motor propellants, missile case and nozzle design, advanced valve development, and design improvements in missile electronics.

We have seen significant progress in development of a Free Electron Laser (FEL) System that promises a highly effective and affordable point defense capability against surface and air threats, future anti-ship cruise missiles, swarms of small boats, as well as other asymmetric threats.

Another example of inter-agency cooperation is HyFly, a joint ONR/DARPA program with the objective of demonstrating hypersonic missile flight. The program was initiated in FY02 and is planned to complete in April 2007 with 3 powered flights, the last of which will demonstrate sustained flight at Mach6 in a missile configuration that is compatible with Navy launchers.

HyFly is a \$157M program with DARPA and ONR each providing 50% of the funds. The program grew out of technologies developed in the ONR Hypersonic Weapons Technology and the DARPA Affordable Rapid Response Missile Demonstration programs in which the supporting engine and material technologies were developed.

Key technologies being demonstrated include the Dual Combustor Ramjet engine developed at Johns Hopkins Applied Physics Laboratory and a high temperature refractory coated Carbon-Carbon engine. The engine is the first scramjet engine to demonstrate operability with JP-10 fuel that is already qualified for use on Navy weapons. On December 10, 2005, the first powered flight using the 50% scale engine was successfully demonstrated from NASA/Wallops in which the engine operated over a speed range of Mach 5.3-5.7.

Finally, ONR is working with multiple DoD organizations to develop Directed Energy weapons. ONR is currently providing management oversight, technical oversight and funding to the Joint High-Power Solid-State Laser (JHPSSL) Development Program. JHPSSL is a joint program between the DDR&E High Energy Laser-Joint Technology Office (HEL-JTO), Army, Air Force, and Navy to develop technologies that will lead to development of a high-power solid-state laser system. This involves technologies with application to projects in all services.

ONR is also working with the HEL-JTO on Free Electron Laser (FEL) technology development. In addition to funding the ONR FEL development program, ONR chairs the HEL-JTO FEL technical area working group. This group involves representatives from Air Force, the Army and DOE National Laboratories working in cooperation to further the development of FEL technologies. In the past four years, this group has directed over \$20M of funding in a variety of technical areas support the development of a high power FEL.

Workforce Development and Human Capital Strategy

Developing and refreshing our S&T workforce is a key emphasis this year as it has been in the past. While each of the Naval Research Enterprise (NRE) centers and labs recruit and maintain their workforce through a variety of locally managed programs, ONR provides assistance relative to the S&T subcomponent of the NRE's larger Science & Engineering (S&E) population pool.

The Naval Research Enterprise Intern Program (NREIP) is open to students currently enrolled at one of the 69 NROTC colleges, universities, or their affiliates. This program offers full-time, ten week summer appointments at sponsoring Navy Laboratory sites including NRL.

Each of the Naval Research Enterprise centers recruit new employees based on local program (mostly acquisition) needs. For example, the Naval Surface Weapons Center (NSWC), Dahlgren Division, scientists and engineers attempt to attract the interest of a diverse sector of new college graduates who are pursuing employment in math and science careers through a series of special recruiting events this year (2006). One event was recently held in February; another in March and a third is being planned for April 2006. In each of these events approximately 25-30 students are provided the opportunity to visit NSWC, view technology exhibits that showcase Navy projects, and interview potential new employers.

There are a number of Defense Scholarship Programs the NRE community uses to attract students to the Defense Industry. The National Defense Science and Engineering Graduate (NDSEG) Fellowship/Scholarship Program is an example of one such traditional program. A newer tool being used is the Science, Mathematics, and Research for Transformation (SMART) Defense Education Program authorized by congress in FY06. This education and scholarship program allows the NRE to recruit new talent as well as providing the flexibility for the NRE to support current employees that wish to pursue advanced degrees in highly specialized critical skill shortfall areas.

There is also a significant level of collaboration between the Navy and the National Science Foundation (NSF). The Navy and NSF are equal partners in a program that funds research collaborations between academic researchers and Navy scientists working on difficult problems of naval interest. This program, called the NSF-Navy Civilian Service (NNCS) program, is a (civilian) “service payback” scholarship that is awarded to a small number of researchers who agree to work for the US Navy at one of the Naval Research Enterprise Laboratories and Centers.

Conclusion

In conclusion, I want to thank you again for the opportunity to discuss initiatives undertaken by Naval Science and Technology and your Navy and Marine Corps team.

In recent testimony, Secretary Winter stated, “In preparing for the future we will not overlook the present.” I believe that the opposite is also true: In preparing for the present, we will not overlook the future. As the FY 2007 President’s Budget request is about both prevailing in today's wartime environment and bridging to a successful future, building that bridge requires careful S&T investments that will protect this nation and our war fighters long into the future.

I believe the state of our S&T investments is sound, represents careful stewardship of taxpayer dollars, and most importantly, will make significant contributions to our war fighters as they continue to serve in defense of the United States, both today and well into the future. Thank you again for your support.