In coming to the close of my first full year as President of the Naval Postgraduate School, I can point with pride to a number of accomplishments achieved by the Naval Postgraduate School. First, we have set in place a new strategic plan to guide us for the next five years. This plan emphasizes NPS’ strength in research and graduate education while highlighting areas for expansion into national security areas, total force education and larger global outreach. I am pleased to report that implementation of the strategic plan has begun including the collection of metrics to track progress and that all academic and administrative areas are now examining their own plans to align with that of the university.

Another important accomplishment is sharper focus on retaining the best faculty with a number of initiatives. First, a retention bonus program for our Distinguished Professors. Second, putting all of our assistant professors on a nine-month compensation model, making us more competitive with other universities in recruiting the most talented assistant professors. Third, the Chief of Naval Operations Distinguished Fellows program was launched, with three renowned leaders identified: Retired Adm. Thomas Fargo, former Congressman and Chief of Staff in the Clinton White House, and retired Rear Adm. Honorable Jay Cohen, Undersecretary for Science and Technology in the Department of Homeland Security. Fourth, the NPS Foundation has provided us with an $100,000 annual fund to support faculty recruitment and retention efforts. Finally, we are developing a plan to move all faculty to the nine month compensation model – this will put all of our faculty on the same funding basis and making us more similar with other major research universities.

One of the most important goals of the new strategic plan is improved administrative, financial and business processes. While NPS has grown in the size of both research and educational programs, many of the support processes have not undergone realignment to match that growth. To help determine the most effective organization, a management consulting group was hired to review the upper management structure, ensuring a governance aligned to support the mission while meeting requirements of the Department of the Navy.

The consultants recommended that NPS should clearly define the responsibilities of some senior administrative positions including those reporting directly to the Office of the President, to achieve organizational effectiveness and efficiency as envisioned by the strategic plan. The new organization structure includes a leadership team consisting of the President and Provost who now also becomes the Executive Vice President. The Deans of the academic schools are clearly positioned in academic leadership roles. Research and Information Resources will also be headed by Vice Presidents. A Vice President for Finance and Administration will head up a re-organized set of support units in those areas. These changes were made, effective April 2008 with a search for the VP of Administration and Finance scheduled to begin in May.

NPS is poised to realize its potential as one of the truly great research institutions. The implementation of our strategic plan and the resulting changes will ensure that NPS continues to fulfill its mission, for the next five years and far into the future.
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NPS Attends 12th Annual CENIC Conference

The Naval Postgraduate School recently built on connections with the best and brightest of California and beyond at the 12th Annual Corporation for Education Network Initiatives in California (CENIC) Conference 2008.

CENIC was formed in 1996 and since then has grown into a state-spanning fiber-optic network serving nearly all of California’s research and educational institutions. This includes more than 8,000 K-12 schools, over 100 California community colleges, all 23 campuses of the California State University system, and all 10 campuses of the University of California System.

“CENIC permitted us to operationalize our .edu domain,” said Dr. Christine Cermak, NPS Chief Information Officer. “This enables us to peer with high-speed national and international networks. It really permits us the network flexibility, capacity and speed you find at other research universities.”

“The theme of the conference was ‘Lightpath to the Stars’ and one of the things stressed at the conference was high-speed connections, and how people in the education community in California benefit from them,” said Dan Bursch, NPS National Reconnaissance Office Chair Astronaut, former astronaut, and a keynote speaker at the conference.

“I talked about how NPS has done VTCs with astronauts in space before,” said Bursch. “I also spread the word about the number of astronauts that have graduated from NPS, 33, more than any other graduate school in the country. Most people are surprised to hear that.

“One of the largest challenges out country faces as we go back to the Moon and on to Mars are the time delays associated with such large distances,” Bursch continued. “Regardless of the speed and capacity of the connections, we will still have to deal with one-way delays of 3 to 21 minutes on a mission to Mars. In some sense, we will need to learn how to deal once again with long voyages with periodic communication; some-thing that the Navy has dealt with since the very beginning.

“One of the important reasons we attend conferences like this one is visibility,” said Bursch. “By attending conferences like this that are attended largely by the big research universities of California, it gives visibility and credibility to NPS as a research university.”

“Dan Bursch’s keynote address was extremely well received,” said Cermak. “People were talking about it throughout the conference and how excellent it was. They also commented about how they appreciated NPS’ participation. Professor Bursch represented NPS very effectively.”

Staff Survey Wake Up Call for Leadership

The Naval Postgraduate School Staff Development Advisory Committee (SDAC) completed its analysis of a fall 2007 survey of staff and supervisors’ views of the work and professional development environment at NPS. The results, which were briefed at an all hands meeting Mar. 13 and have been discussed with President Dan Oliver, Provost and Executive Vice President Leonard Ferrari and Chief of Staff Air Force Col. Dave Smarsh, are posted at the SDAC’s new web site http://intranet.nps.edu/Staff/SDAC.html.

The SDAC was established by the NPS Business Process Implementation Task Force in the spring of 2007 as a dynamic part of Ferrari’s strategic vision to explore how to best support and enhance learning opportunities for staff. The committee’s mission is to identify and raise awareness of career development opportunities for all levels of core and contingent staff and provide a framework for continuously improving individual and institutional operational excellence at NPS.

Under Ferrari’s direction, the Committee distributed the survey in October to approximately 350 administrative and academic support staff and collected data through interviews and focus groups, as well as the online questionnaire. More than 230 staff members responded with their perception of training needs, obstacles to professional growth and readiness to participate in a career development program. Forty-seven supervisors were among the staff providing feedback.

According to SDAC Chair Sue Dooley, the Committee’s next step will be to develop recommendations based on the survey results and submit them to the President, projected for sometime in April.

For questions and to contribute your thoughts and pinions to the effort, e-mail SDAC@nps.edu.

Community Discussion on Climate Change

By MC3 Kellie Arakawa

The Naval Postgraduate School joined the Higher Education Communications Alliance (HECA) in presenting an environmental forum that featured Marcia McNutt, President and Chief Executive Officer of the Monterey Bay Aquarium Research Institute.

Members of the alliance include both military and civilian education institutions from around the Monterey Peninsula.

“Bringing information and open dialogue on our local and global environment to local residents in a free and open, public forum is part of our collective institutions’ educational mandate,” said Alan Richmond, Chairman of HECA and Director of Market and Community Relations at NPS.

McNutt, who was introduced by Richmond as one of the world’s leading oceanography authorities, discussed the negative effects of climate change on the world’s oceans.

In her presentation, McNutt pointed out that the ocean absorbs 30 times more heat than the Earth’s atmosphere, which may result in a significant loss of marine diversity within the next 100 years.

When asked what concerned citizens can do to prevent further damage to the ocean, McNutt emphasized the importance of community support and personal decisions.

“I would hope that people here tonight will be part of changing the way that people behave in terms of personal actions,” McNutt explained. “I think that will make a big difference.”

Staff Survey Wake Up Call for Leadership

By Barbara Honegger

The Naval Postgraduate School Staff Development Advisory Committee (SDAC) completed its analysis of a fall 2007 survey of staff and supervisors’ views of the work and professional development environment at NPS. The results, which were briefed at an all hands meeting Mar. 13 and have been discussed with President Dan Oliver, Provost and Executive Vice President Leonard Ferrari and Chief of Staff Air Force Col. Dave Smarsh, are posted at the SDAC’s new web site http://intranet.nps.edu/Staff/SDAC.html.

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CSRS Hosts Conference

By MC3 Kellie Arakawa

Cooperation, cross-community education and maritime strategy were the central themes that resonated throughout this year’s U.S. Navy Stability and Security Conference, hosted by the Naval Postgraduate School Center for Stabilization and Reconstruction Studies (CSRS) Jan. 30-31 in Arlington, Va.

Approximately 230 participants from the Armed Forces, government agencies, foreign governments, nongovernmental organizations and international governmental organizations attended the conference, which featured panel discussions with NPS President Dan Oliver, Rep. Sam Farr (D-Calif. 17th District) and NPS faculty and staff.

Matthew Vaccaro, the CSRS Program Director, said the keynote speech focused on the details of the military’s new maritime strategy, A Cooperative Strategy for 21st Century Seapower.

The document outlines a unified strategy between the three sea services and emphasizes the importance of sea power and partnerships in preventing future global conflict. It also states that trust and cooperation among nations must be developed over time.

Oliver felt the CSRS conference was a vital opportunity for the key practitioners in stability and reconstruction efforts prior to conducting operations.

“Once disaster strikes, it’s too late to get to know people,” he explained.

Vaccaro said such conferences are important, because even though many of these organizations and countries don’t know when the next disaster will hit or where, what they will know is “all the people and organizations that are going to be there.”

Advanced Distributed Learning Director Visits NPS

By MC2 (SW) Corey Truax

The Naval Postgraduate School welcomed the Director of the Advanced Distributed Learning (ADL) Initiative for the Office of the Secretary of Defense, to discuss ADL initiatives, technologies, software and interoperability standards.

Dr. Robert Wisher, who is responsible for directing and implementing the ADL initiative within the Department of Defense, as well as other government organizations, academia and industry on an international basis, was also here to observe what NPS has done with ADL.

Starting the day with NPS President Dan Oliver, Wisher got a feel for what NPS excels at and what the school’s goals are. “I see NPS as a forward-looking educational institution that takes advantage of its own research and looks for ways to reach out to students and strengthen the learning experience,” he said.

Visiting the Modeling, Virtual Environments, and Simulation (MOVES) Institute and the Office of Continuous Learning (OCL) Wisher saw a few ways NPS educates its students.

“He saw DL learning demonstrations including NPS DL students playing TEMPO, an acquisitions game that OCL adapted for delivery via the Web and added multi-player capability to the existing player versus computer design, and an ‘Ants and Bridges’ interactive media which serves as a development tool for students to model swarms and emergent behavior before spending hours of development and programming time,” said Valerie Moule’, Acting Director of OCL.

CHSC Grant Stimulates Momentum

By MC2 (SW) Corey Truax

The Naval Postgraduate School took progressive steps toward improving local and national Homeland Security (HLS) concerns by pushing for and receiving a $2 million grant to develop and manage the California Homeland Security Consortium (CHSC).

The CHSC will leverage multi-disciplinary capabilities of Monterey area groups and collaborate with California-based higher education, research and national security-related institutions to improve the response to, and manage the effects of, HLS incidents in their communities.

CHSC, the brainchild of NPS Provost Leonard Ferrari, expands further upon Rep. Sam Farr’s (D-Calif. 17th District) Team Monterey concept. Together, federal organizations and civilian communities will work to solve national security issues.

“The CHSC will initiate research, education and industry efforts to begin the process of establishing best-practice based guidelines to communities to support their HLS efforts,” said NPS Prof. Tom Housel, CHSC Executive Director.

In addition, Wisher saw a demonstration of the Institutional Repository that OCL, the Library and IT ACS are piloting, which will submit metadata to the ADL Registry allowing ADL users to search for content from NPS, along with content from other organizations. This is important to ADL and Wisher expressed interest in following up with NPS on the project.

“The school has a natural tendency to conduct experimentation, so I think trying new ideas and testing how successful they are with the different programs in the Office of Continuous Learning and the MOVES institute positions you to do that kind of work,” said Wisher.

He also stressed the importance of reaching out to the vast international audience that is available through NPS.

“My view is that NPS can be used as a model of where a NATO educational organization can go in the future,” explained Wisher. “Looking at the capabilities at NPS of integrating distributed learning and distance learning with onsite instruction give the other NATO institutions a large goal to reach for.”

“Distributed and distance learning for military members is essential to meet the demands of the deployed war-fighters who still want to hone their mental edges.

“Many of our students are unable to take the time out of their career or are deployed so are unable to attend resident education,” explained Moule’. “DL allows them the opportunity to obtain graduate education, which increases their professional skills and knowledge, benefiting their organization.”
Education Summit

by Grace Castro

In the largest gathering of homeland security educators to date, the Center for Homeland Defense and Security, along with the Homeland Security and Defense Education Consortium, the U.S. Department of Homeland Security, and the University of Maryland held the Second Annual Homeland Defense and Security Education Summit in College Park, Md., with nearly 200 participants from more than 100 colleges, universities and government agencies across the nation.

Homeland security has quickly become the nation’s fastest growing academic discipline. More than 250 community colleges, four-year universities and postgraduate institutions now offer degree programs and certificates. As this trend continues, colleges and universities must maintain continuous communication during expansion of their own homeland security programs. The Summit was created as a forum where participants are able to network, collaborate, and leverage resources, and learn about the latest developments in this very dynamic field.

The newly established Homeland Security/Defense Education Consortium Association (HSDECA) made its debut during the event. The HSDECA will be the accreditation association for homeland security education. The Consortium grew to more than 200 members in 2007. These associations included most of the academic institutions in the U.S. offering homeland-security programs, as well as several in foreign countries. The Association was incorporated in November 2007, and will formally begin accreditation functions once approved by the Department of Education.

Transformation Chairs Network

By MC2(SW) Corey Truax

The Transformation Chairs Network of the Office of Force Transformation and Resources was hosted by the Naval Postgraduate School at the Armed Forces Communications and Electronics Association/U.S. Naval Institute (AFCEA/USNI) West 2008 Conference at the San Diego Convention Center on Feb. 6.

Retired Vice Adm. Arthur K. Cebrowski, who died November 12, 2005, was appointed in 2001 by then Secretary of Defense Donald Rumsfeld as Director of the newly formed Office of Force Transformation. During his four-year tenure, he created the Transformation Chairs Network.

In creating the Network, Cebrowski, an NPS alumni for whom the Cebrowski Institute is named, championed the concept that security in the information age requires out-learning the competition, as well as creating structures to encourage cooperation and collaboration.

“He understood the power of sharing information,” said Sue Higgins, the Deputy Director of the NPS Cebrowski Institute and Transformation Co-Chair for NPS, a position she shares with Defense Analysis Department Prof. John Arquilla.

“Cebrowski also appreciated that our educational institutions are critical to growing information-age leaders.”

Cebrowski funded the Transformation Chairs Network and tasked it to meet regularly at the DOD schools. This created a network of people at the faculty level who could start making connections and evoking change through collaboration.

“Creating social networks that crisscross the DOD schools is really what this Transformation Chairs Network is all about,” said Higgins.

Living up to Cebrowski’s vision, the Transformation Chairs Network conversations during the AFCEA/USNI Conference focused on opportunities for collaboration across schools and also targeted ways to use the network’s influence to fine tune the administrative side of the schools to help create openings in curriculum and policy.

“I think the transformation chair meeting in San Diego was one of the most successful events in that we agreed to collaborate on a fixed project and pursue a number of initiatives collaboratively,” said John J. Garstka, the Assistant Director of Concepts and Operations at the Office of Force Transformation.

“Transformation is foremost a continuing process,” Cebrowski once wrote. “It does not have an end point. Transformation is meant to create or anticipate the future.”

AFCEA/USNI West 2008

By MC2(SW) Corey Truax

Naval Postgraduate School students, staff and faculty attended the Armed Forces Communications and Electronics Association/U.S. Naval Institute (AFCEA/USNI) West 2008 Conference at the San Diego Convention Center Feb. 5-7.

AFCEA has more than 35,000 members on four continents and is comprised of political, military and industry leaders. There are 135 different AFCEA chapters in over 30 countries. It is recognized for excellence, high ethical standards and the quality of its events.

This year’s conference topic was “U.S. at a Crossroads: Where—and How—After Iraq?” and retired Marine Corps Gen. Peter Pace, former chairman of the Joint Chiefs of Staff discussed the subject, saying it’s going to take more than dominant military power to win the war, it’s going to take all government and industry resources available to prevail.

NPS was one of hundreds of organizations represented by booths and displays in the 525,701 square foot convention center. Representatives roved the floors looking for potential audiences and also to garner information about others.

NPS San Diego Area Director George Zolla manned the NPS booth “to show the research being done at NPS, to counsel prospective students and give them a chance to apply.”

“We had a steady group coming and going through, but this year there was probably more people total,” said Zolla.

“Even on the last day before we were about to tear down we had people coming by to see us.”
After an extensive, confidential nomination process and a month-long election, Naval Postgraduate School Distinguished Prof. Gerald Brown received a surprise notice on Feb. 8 of his selection into one of the most prestigious engineering institutions in the country.

From Ivy League professors to researchers at leading technology companies, the National Academy of Engineering (NAE) elected its 65 newest members based on their significant contributions to the field of engineering.

According to the NAE membership guidelines, members are recognized for at least one of two categories, which include "engineering research, practice or education, including, where appropriate, significant contributions to the engineering literature," and "the pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering or developing/implementing innovative approaches to engineering education."

The membership process involves a lengthy examination of a candidate and can take as long as one year to confirm. NAE describes its memberships as one of the highest professional distinctions accorded to an engineer.

Brown, a professor with a 35-year career in the NPS Operations Research (OR) Department, was elected for his contributions to large-scale optimization theory and its military and industrial applications. His developments in basic optimization theory and algorithms have been widely used in both military and business strategies.

"I was not expecting it and was very surprised," Brown said of his new NAE membership. "It's a real honor."

Brown's election to the academy makes him the only current faculty member at NPS with a NAE membership.

He called his selection a testament to the quality of education and research at NPS. "People involved in the NAE, which include a mix of industry types, academics and major universities, have finally started to recognize NPS," he said.

Prof. James Eagle, Chairman of the OR Department, called Brown "the nation's leading developer of optimization-based decision-support systems for military planning and operations."

Brown participated in a recent bioterrorism study with the National Academy of Sciences and has received numerous awards for his work, which include a Koopman Award for best publication in military operations research, a Navy Superior Civilian Service Award for projects involved with Operation Iraqi Freedom, and the NPS Schieffelin Award for Excellence in Teaching.

He is a fellow of The Institute for Operations Research and the Management Sciences, and his optimization research is used by many Fortune 200 companies.

Despite his numerous awards and newly appointed NAE membership, Brown spoke most enthusiastically about his students, who are a driving force behind his passion for teaching.

He described many of his students as "unstoppable" officers who arrive at NPS with a burning passion to study and apply their knowledge to the work they conduct in the field and fleet.

"The energy, inventiveness and ingenuity of these people is unbelievable ... they make me proud to work here," he said.

Brown frequently advises his younger colleagues to provide as much support as possible to the students, because they may one day serve as the military's most influential leaders.

His former students include a future Secretary of the Army and Adm. Mike Mullen, Chairman of the Joint Chiefs of Staff, who graduated in 1985 with a master's degree in Operations Research.

Although he has been encouraged to go on sabbatical, Brown said his high regard for NPS faculty and students makes him reluctant to take any significant leave from the OR department. "I work at the best place on the planet," he said. "This is the best group of people in OR and optimization, and I'm delighted."
The Naval Postgraduate School Physics Department recently acquired the Stanford Free-Electron Laser (FEL) in a project backed by Office of Naval Research (ONR) to take naval ship missile defense systems into the future.

For several decades, NPS graduates have played a significant role in the development of directed energy for military applications, including the use of the FEL against guided missiles, but never before did NPS have an FEL locally to test theories.

The idea to put an FEL on a ship was nurtured by Distinguished Professor William Colson, NPS Physics Department, who has a long and detailed history with the FEL. “When I came to NPS, I started teaching military students and found more military applications for assignments,” said Colson. “That's when I started considering the FEL be put on ships to protect them from incoming missiles.”

Colson’s history with the FEL spans back to the 70s when he attended Stanford University at an important time in FEL history. “I was a graduate student at the time and my advisor suggested that I do my thesis on the theory of a free-electron laser,” Colson explained. “Partly due to the timing of it, I got a chance to create a theory that didn't exist at all. That was in the mid 70s and people are still using the same way of looking at it, the same approach, the same concepts.”

Colson probably didn't realize then but more than 30 years later he would be working with the same FEL. “Co-incidentally, we are getting the Stanford FEL laser moved here to NPS,” said Colson. “It is the original one and the first superconducting accelerator.”

“"It is the original one and the first superconducting accelerator."”

“The Navy says we are going to do this and it's going to be done here,” said Colson. “We are going to get the first accelerators on ships and the first free-electron lasers on ships.”

The innovative Navy prototype starts in 2010 officially, but ONR has already begun funding in support of the project.

Students Present Theses to Naval Personnel Organization

In hopes of shedding new light on the Navy’s personnel policies and data, seven Naval Postgraduate School students and two recent graduates met with the Chief of Naval Personnel (CNP), Deputy Chief of Naval Operations of Manpower, Personnel, Training and Education (MPTE)/(N1) Vice Adm. John C. Harvey Jr. and presented their theses to representatives of various naval personnel organizations in Washington March 11-12.

The NPS Manpower Systems Analysis (MSA) program, which focuses on developing analytical skills to manage the Navy’s human resource community, sends its top students each year to showcase their research in Washington.

MSA faculty selected students based on the quality and relevance of their research to the naval personnel organization, said Prof. Stephen Mehay, Academic Associate for the MSA curriculum.

Students and alumni who presented their theses were:
- Lt. Cmdr. Aron Carman and Lt. Ryan Mudd, Adding a Performance-Based Component to Surface Warfare Officer Bonuses: Will it Affect Retention of Naval Officers?

After the briefing, Rear Adm. Garry White, Director of the Total Force Requirements Division (N12), presented the Chief of Naval Personnel Award for Excellence in Manpower, Personnel and Training to Carman and Mudd for their thesis quality, outstanding academic performance and leadership potential.

Robert Beck, Dean of the Graduate School of Business and Public Policy, said the event encompassed many objectives. “It’s good for our sponsors and the people at the Pentagon headquarters area for the Navy, particularly N1, to see the results of our work and what our students can do with the courses,” he explained. “It also helps reinforce that education is an investment, not a cost.”

Mehay called the thesis presentation an important event, which serves as a capstone of the students’ experience at NPS. “They not only do an academic thesis, but they also get to tell somebody why what they did is important and make recommendations to decision makers,” he said.
A Naval Postgraduate School faculty-student team is quantifying the old adage, "Some must watch while some must sleep." Their research, which could fundamentally change the way the military thinks about itself and performs its mission, has shown that getting an extra two hours of sleep before manning the virtual battlefield can mean the difference between life and death on the real one.

Operations Research Associate Prof. Nita Lewis Miller, military instructor Cmdr. Douglas Burton and four human-factors students used the Fatigue Avoidance Scheduling Tool (FAST) to study the performance of Marine Quick Reaction Force Platoons on watch duty in Iraq under differing sleep and shift schedules. The watch teams operate the remote-surveillance video cameras of the Ground Based Operational Surveillance System (GBOSS) credited for detecting two-thirds of attempted insurgent perimeter penetrations and plantings of improvised explosive devices (IEDs) in Iraq.

The stakes are high in improving GBOSS effectiveness, as IEDs account for 60 percent of deaths and nearly 80 percent wounds of U.S. troops in the Iraqi theater.

"Camera operators in tactical operations centers have to maintain a high level of vigilance over long periods of time looking for needles in the battlespace haystack," said Miller. "Maintaining attention in tasks like these is becoming more and more important as the military increases its use of remote-operator surveillance and control systems."

The officer students in Miller’s Individual Performance course - Army Capt. Dan Hall and Navy Lts. Tim Barkley, Patrick Lazzaretti and Michael Paisant - found that GBOSS operator performance was best with eight hours of sleep, a standardized shift schedule, one-hour watch rotations and - as attention starts to wane after only three minutes on watch - five- to ten-minute breaks every half hour on duty.

"Getting enough sleep is vitally important to military effectiveness in the current 24/7 increased op-tempo environment where troops are being asked to do more and more," agreed Burton, a Navy helicopter pilot who worked with Marines in Iraq and advised the commander in Fallujah on the effectiveness of the technologies they use.

“The analysis, for instance, showed that a psycho-motor task performed at almost 100 percent accuracy after nine hours of sleep drops to just over 50 percent with only three hours,” Burton said. “Technology is only as good as the people who use it. We’ve got to put the same kind of attention and scientific rigor into optimizing the human in the loop as we do in honing our hardware systems down to the last gear and ball bearing.”

“In the military, going without sleep is a major part of the culture,” Hall noted. “I routinely kept my guys up for 72 hours. If I’d known when I was in command what I know now, I would have scheduled and conducted my soldiers’ training a whole lot differently.” Hall sent the watch team study results to his former commander in Iraq and will be spreading the word to the Army’s future leadership in his new position as a behavioral sciences and leadership instructor at West Point.

“The great thing about this course is that it gives you an opportunity to work on a research project that makes a real difference to real troops in the combat zone,” added Paisant. “The bottom line is, on the battlefield - real or virtual - pretending to be superhuman can unintentionally hand the enemy an unearned advantage.”

The new research will also have a direct impact on the fleet.

"Within a year of getting to my new ship - the USS Jarrett [FFG-33] - I’ll be senior watch officer and will be writing the watch bills for the entire crew," said Barkley. “Everything I’ve learned here at NPS can and will be applied to improving the readiness and performance of the entire ship.”
With a six-million dollar grant provided by the Office of Naval Research, the Naval Postgraduate School has begun working with the University of North Carolina at Chapel Hill and the Sarnoff Corporation on a three-year-long project that will provide the Marine Corps with a state-of-the-art training system.

The Behavior Analysis and Synthesis for Intelligent Training (BASE-IT) will enable pre-, in- and post-performance evaluations using behavior analysis, review and behavior synthesis of selected training events.

Using a network of optical sensors and Marine-worn global positioning systems provided by the Marine Corps Program Manager for Training Systems (PM TRASYS), the BASE-IT system will record the physical movements of Marines in military operations on urban terrain (MOUT) training facilities.

The system will monitor everything from individual posture to group dispersion and even the number of times a Marine turns his head to scan the surrounding environment. It will then use the data to assess the physical behavior and actions undertaken by individual and group participants.

BASE-IT will also enable Marines to use 3-D simulations during pre-training sessions to practice drills and events they will encounter in a training facility. Upon completion of the actual live-fire exercise, they will be able to review their recorded actions and receive automated assessments of their performance.

In both training situations, the system will allow them to simulate and play back a series of prerecorded events as well as explore alternative courses of action.

NPS Professors Amela Sadagic, Chris Darken, Rudy Darken, Neil Rowe, Mathias Kolsh and the Delta 3-D Team from the Modeling, Virtual Environments and Simulation (MOVES) Institute have been tasked with leading the effort to develop a prototype that will be transitioned into final production by PM TRASYS.

"After analyzing different kinds of training systems that are provided to different services and having detailed insights about current training needs in the field, we felt that this automated data analysis was painfully missing," said Sadagic, the project's principal investigator.

Rudy Darken, a Professor of Computer Science, called BASE-IT a groundbreaking training system. "I can't think of anything in the world like it," he said. "I think the whole program is trying to revolutionize the way the Marine Corps trains."

To familiarize themselves with a combat training environment and begin initial data collection, BASE-IT researchers spent a week visiting MOUT facilities in Twentynine Palms, Calif., and Camp Pendleton, Calif. Since many team members were unfamiliar with live military exercises, the visit was an essential component of the preliminary research process.

Sadagic believes it is important for the MOVES Institute to take the lead in the development of BASE-IT, because NPS is one of the top institutions for military research with an ability to successfully identify real-world problems and propose research that most effectively addresses those issues.

The Naval Postgraduate School Modeling, Virtual Environments and Simulations (MOVES) Institute hosted a brown bag session to further an ongoing research collaboration with the NASA Ames Research Center by hosting a presentation about subvocal speech and emerging trends in bioelectric device interfaces.

Subvocal speech is a new form of human communication based on neural impulses that control the vocal tract rather than sounds. These electromyographic (EMG) signals arise from commands sent by the brain’s speech center to articulators that enable production of audible words. The subvocal speech technology intercepts EMG signals before a sound is produced and then infers corresponding words or actions to those captured signals.

Dr. Chuck Jorgensen, Chief Scientist for Neuro Engineering, NASA Ames Research Center presented videos and a live demonstration of how he and his research assistant, Pavel Lyubich, are able to use button-sized sensors, stuck under the chin and on either side of the neck or on other parts of the body to gather nerve signals, and send them to a processor and then to a computer program that translates them into words or commands.

Subvocal Speech Demo’d at NPS

"One application of this in the military would be small-squad communications. Especially if you want total silence amongst those soldiers,” said Jorgensen.

"That would pretty hard to do even if they talked quietly ... with this technology they could communicate while producing no audible sound.”

Another benefit of this technology is the ability to communicate even in noisy conditions. Jorgensen and his colleagues have already successfully tested this technology in deafening areas and still were able to receive and understand subvocal communications. This ability to continue communications in noisy conditions would be vital to soldiers in a warzone, first responders in fire, astronauts in space and countless other professionals.

"There is a truly talented group at NASA Ames,” said Prof. Anthony Ciavarelli, an NPS MOVES Institute Research Professor. "Using the NPS Outreach Program we are establishing a formal relationship with NASA Ames so that we can exchange speakers on a regular basis and our students can get involved in some of the NASA Ames research and in turn share resources between the organizations."
They trained together. They served together in Iraq as assistant officers in charge of the three detachments of Riverine Squadron ONE (RIVRON ONE), the Navy’s first dedicated river boat patrol in a war zone since the famed “River Rats” of Vietnam. And now their career paths have brought them together again, as a military lecturer and officer students at the Naval Postgraduate School.

One of three riverine squadrons serving as a 224-man ready force for the Joint Force Maritime Component, part of the Navy Expeditionary Combat Command, RIVRON ONE was the first to serve in Iraq. Each of its three brown water detachments consist of four riverine patrol boats specially designed to operate in hostile environments, eight near-continuously-rotating boat crews, an organic ground team, and tactical vehicles used to convoy the boats over land. Additional personnel, such as maritime interdiction operations and unexploded ordnance disposal teams, worked with the detachments as missions required.

Lt. Matt Kolb, former assistant OIC of Riverine Squadron ONE’s Detachment TWO, is co-teaching “Computing Systems Principles” as a military faculty member, with Senior Lecturer J.D. Fulp, beginning in Spring Quarter. Kolb, who previously earned a master’s degree in the field from Johns Hopkins University, specializes in computer graphics, visualization and human-computer interaction.

Lt. Keith Paquin, a surface warfare officer who served in Iraq as assistant OIC of Detachment ONE, is a student in the NPS National Security Affairs Department specializing in the Western Hemisphere.

Lt. Steve Gray, an Information Professional who served for his first month in Iraq as assistant OIC of Detachment THREE, is a student in Information Technology Management. Gray went on to become the assistant operations officer for all of Squadron ONE, at its forward operating base headquarters at Haditha Dam, a massive ten-story structure overlooking the Euphrates River.

“We’re the first post-Vietnam ‘brown water’ Navy,” Kolb said proudly. “Early in Iraq, the Marines did the river and lake patrols, but duties were transitioned back over to the Navy as part of the initiative to get naval forces more involved on the ground. From the beginning, I was really excited to be there because we were standing up a brand new unit and then head-

ing to where the center of the action was, paving the way for the new riverine force.”

“As assistant OIC in a brown water detachment, you’re the company executive officer responsible for operations, administration, training and logistics - the ‘jack of all trades’ to get all the equipment and supplies your detachment needs,” Paquin explained.

“Our bread and butter was deterrence patrols to build stability and sweeps for arms caches hidden along the river,” Gray explained. “To avoid land checkpoints, it’s easy for smugglers to transport weapons at night by boat, so one of the best ways to prevent IEDs from being used along the roads is to find and destroy them along the rivers.”

“The three of us went through eight to nine months of intensive small boat unit combat training together with the Marines from II Marine Expeditionary Force, including cultural and language skills, before we even got to Iraq, and then we all had the same job in the three detachments,” said Gray. “It’s kind of neat to be back together. We’re all really thankful to be here.”

The three XO’s experiences in a war zone brown water squadron have already proven valuable to their studies and teaching at the Naval Postgraduate School.

“My time spent working with the Marine Corps in Iraq has already proven valuable in my first quarter here at NPS,” said Gray. “I’ve been able to share my direct experience with the unique command and control models used in Iraq, that break away from the standard hierarchical models and allow more decisions to be made at lower organizational levels, to discussions in my ‘Introduction to Command and Control’ course.”

“Working with other services during the Iraq deployment aided in understanding how each branch conducts its operations, and NPS creates the unique opportunity to continue that cross-service dialogue and to reach back to the operational theater and apply proven concepts in new ways,” added Kolb.

“I’ve already discussed with another student the possible applications of the Marine Corps Planning Process for developing and drafting a Concept of Operations in the Surface Warfare community.”

“W e’re the first post-Vietnam ‘brown wa-

der community.”

Other detachment duties were to meet and greet the locals to develop good relations and get tips about arms caches, help train Iraq’s military, and coordinate and assist the Iraqi police and army in their operations.

After a seven-month deployment, Squadron ONE returned to the States last October and was replaced by Squadron TWO. Gray led the deployment readiness team for the incoming detachments, transferring ONE’s lessons learned and overseeing exercises and certification for the new group.
Remote Sensing Center Harnesses Satellite Images
Remote Sensing Center Harnesses Satellite Images

As the Navy was making headlines by successfully targeting a wayward reconnaissance satellite, the Naval Postgraduate School Remote Sensing Center was quietly using images from national and commercial satellites to hunt submarines, protect helicopter missions and monitor the ocean’s coral reefs.

Physics Prof. Richard C. Olsen and Meteorology Prof. Philip Durkee founded the Center in 2006 to catalyze interdisciplinary research in satellite and airborne remote sensing technology and applications and capitalize on NPS’ unique synergy of student operational experience and faculty academic expertise in imagery collection, analysis and 3D data display.

The Center’s goal is to become a remote sensing and geo-spatial intelligence Center of Excellence producing leading-edge research, education, technology and business solutions for government, military, academic and civilian institutional and business sectors. Affiliated NPS faculty and partners have deep and broad expertise in detector and focal plane technology, signal processing, meteorology, radar and spectral imaging, image and motion analysis, optics and propagation, and phenomenology analysis.

“A Center benefit that dramatically enhances its value to our faculty, students and partners is the ability to quickly access classified satellite and airborne data in a fully equipped, on-site Remote Sensing Center Sensitive Compartmented Information Facility with significant computing, display and storage systems to process data,” Olsen explained. “And we can use these resources to rapidly share our intel products with the operational theater.”

The Remote Sensing Center also has access to multispectral images from civilian satellites and hyperspectral images from airborne systems, including data from Light Imaging Detecting and Ranging (LIDAR) systems used for meteorological and cloud measurements, mapping in urban and natural environments, and seeing through vegetation. The group is acquiring a polarimetric camera with the potential to detect camouflage, and heavily uses a full-range field spectrometer. A smaller spectrometer has been used for in situ ocean measurements, and the Center has numerous portable Global Positioning System (GPS) units for field work.

“Another key strength is specialized software for analytical process modeling and testing, dramatically increasing our ability to obtain ‘ground truth’ measurements needed to validate and calibrate remote sensing data,” said Center faculty member and Measurement and Signatures Intelligence (MASINT) Chair, retired Air Force Col. David Trask. “We are uniquely positioned to create operationally responsive remote data-analysis systems based on hyperspectral LIDAR, multispectral high-spatial-resolution and other images and video for a wide range of applications of significant added value to warfighters and the intelligence community, and for environmental monitoring.”

A high profile Center project uses aerial and satellite images to identify and avoid helicopter landing sites likely to produce mission-threatening brownouts caused by rotors stirring up dust and debris clouds. Predicting such brownouts is a high priority for military mission planners, as the number of incidents involving the hazard have more than doubled since the beginning of U.S. operations in the desert environments of Afghanistan and Iraq.

“One of our officer students, Marine helo pilot Lt. Col. Mitch ‘Rico’ Rios, personally experienced these dangerous brownouts in Afghanistan, brought them to our attention as an urgent operational challenge, and did his thesis on classified military systems’ ability to address the problem,” said Trask.

Another ongoing Center project is monitoring and assessing the vitality and diversity of life in coral reef ecosystems, led by postdoctoral fellow and oceanographer Dr. Daria Siciliano. Siciliano uses multispectral images from commercial satellites to map and monitor the health of coral reefs (see photo left of her gathering ‘ground truth’ data while diving over a Pacific reef).

“Coral reefs are the canary in the mine’ of the tropical oceans,” Siciliano explained. “Just as the destruction of rain forests on land accelerates global climate change and pushes endangered species towards extinction, the same is true for coral reefs, the rain forests of the oceans. Because reef degradation is a key indicator of adverse changes in the larger ocean system, reef monitoring and assessment are critical, and to do that in a cost effective way that efficiently covers wide areas and remote locations, you have to have high resolution remote sensing data.

“One of the most fantastic things about doing research here at NPS is that, because we have an established relationship with the National Geospatial-Intelligence Agency (NGA), when you ask for images, it’s like snapping your fingers, and they’re there,” Siciliano said. “At NPS we’re also able to send students to do in situ research on remote coral reefs, such as Midway atoll, which are off limits to the general public. And the helpful and open collaboration with colleagues here who have incredible expertise in remote sensing makes NPS a dream place to work and do research.”

Current students are conducting their thesis research in coordination with Center faculty.

Lt. Michael Mortenson is doing his master’s thesis on measuring snow and ice packs using remote-sensing imagery to predict water supplies. Mortenson works with a world expert on global monitoring using military satellites, Prof. Jeff Dozier of the University of California at Santa Barbara, a Center partner.

“This is a good example of a highly valuable domestic civilian use of intelligence assets,” Mortenson said.

Two students from Greece, Navy Lt. jg. Prokopios Krougios and Air Force Capt. Apostolos Karatolios, are working on a joint thesis comparing commercial LIDAR image analysis software programs to see which is better at locating trails under vegetation and tree canopies.

“I highly recommend coming to NPS and doing your thesis or dissertation research with the Remote Sensing Center,” said Karatolios, a fighter pilot and one of 45 Greek students at the university. “The curriculum is well organized and there are many technological capabilities and outstanding faculty to help and support you.”

“In the future, we want to work on larger and more significant problems exploiting satellite data of high value to the Department of Defense, national intelligence, homeland security and environmental segment markets,” said Olsen.

The NPS Remote Sensing Center’s partners include federal national intelligence agencies, the University of California at Santa Barbara and Santa Cruz, California State University Monterey Bay, Lawrence Livermore National Laboratory, the National Oceanic and Atmospheric Administration, the U.S. Geological Survey, the Naval Research Laboratory, Fleet Numerical Meteorology and Oceanography Center, Stanford University’s Hopkins Marine Institute, the Monterey Bay Aquarium Research Institute, the Moss Landing Marine Laboratory and the Elkhorn Slough Foundation.

Center research is sponsored by NGA, the National Reconnaissance Office, the Defense Intelligence Agency, the Navy’s Tactical Exploitation of National Capabilities office, the Special Capabilities Office of the Office of the Secretary of Defense, and the Center for Defense Technology and Education for the Military Services.

For more information about the NPS Remote Sensing Center, go to http://www.nps.edu/Academics/Centers/RemoteSensing/index.html. (photograph courtesy of Dr. James Maragos, U.S. Fish and Wildlife Service)
The sense of historic moment was palpable as some of the nation’s foremost homeland security officials and more than 200 former students, faculty, subject matter experts and distinguished guests gathered at the Naval Postgraduate School for the fifth anniversary of the Center for Homeland Defense and Security (CHDS) alumni conference, Jan. 29-30.

Born from the crucible of Sept. 11, CHDS is the nation’s homeland security (HS) educator. Its mission is to enable current and future HS leaders to develop policies, strategies, programs and organizations to defeat terrorism, bridge gaps in interagency and civil-military cooperation, and build networks among local, state, tribal and federal agencies.

Since 2003, the Center’s 18-month combined distance-learning and in-residence master’s degree program in homeland security has produced nearly 200 alumni from the senior management ranks of the nation’s first responders - public health, law enforcement, fire, emergency management and other professionals with major day-to-day homeland security responsibilities. Graduates complete a thesis on the policy issues facing their city, state or federal sponsoring organization with immediate applicability to real homeland security challenges.

Converging on NPS from across the country to participate in the conference were Dr. Donald Kerr, Principal Deputy Director of National Intelligence; Air Force Brig. Gen. Christopher Miller, Director of Plans, Policy and Strategy (J5) for Northern Command (NORTHCOM) and the North American Aerospace Defense Command; Principal Deputy Assistant Secretary of Defense for Homeland Defense and Americas’ Security Affairs, Peter Verga; Federal Emergency Management Agency Administrator R. David Paulison; Assistant Secretary for Infrastructure Protection at the Department of Homeland Security (DHS), Robert Stephan; Deputy Under Secretary for Operations, Office of Intelligence and Analysis, DHS, Jack Tomarchio; and Assistant Director for Counterterrorism at the Federal Bureau of Investigation, Joseph Billy Jr. Each summarized their view of the most significant advances in homeland security and defense over the past five years and the major challenges that lie ahead. Moderating the panel were CHDS alumni, FEMA Region 10 Administrator Susan Reinertson; Montgomery County, Md., Assistant Chief of Police and CHDS DHS Fellow Dee Walker; and CHDS DHS Fellow Chuck Eaneff.

“At the five-year mark, the over 200 federal, state and local officials who have gone through the Center’s programs are having a major impact on the national security decision making process at FEMA and across the entire Department of Homeland Security,” said DHS infrastructure protection head Paulison, a former fire chief of Miami-Dade County, Fla. “This is the first time we’ve had a master’s program of national scope for officials at all levels dedicated to preparing the country for man-made and natural disasters.”

“I believe in the Center for Homeland Defense and Security and what you give back when you leave here,” Paulison told the assembled graduates and current participants. “I am committing to you here, today, that we’re in this for the long haul.”

“This Center is one of the reasons there hasn’t been another major U.S. terrorist attack like 9/11,” said Verga, a retired Army officer and wartime and emergency continuity of government planning expert who has held high-level positions in the White House and Department of Defense and was one of CHDS’ founders in 2003. “Its importance is that it provides an opportunity for homeland-security practitioners to come together in an academic environment, get to know one another personally and professionally, and learn to think holistically about critical national planning scenarios melding practice and policy — not just the what, but the why of what we’re doing. There are law schools for lawyers, business schools for business people, and the Center for Homeland Defense and Security for homeland-security professionals that has codified the field for the first time as a formal discipline linking practitioners, academics and policy makers I am a big supporter of the Center, and its value will only grow with time.”

“We’ve already had 18 NORTHCOM officers go through the CHDS master’s degree program, with four in the course now,” said Miller. “On behalf of my boss [USNORTHCOM Gen. Victor Renuart], we’re proud and very pleased to support the Center, now and for many more years in defense of this nation.”

“Sending our officers to the Center really opened our chiefs’ eyes to the importance of unified intra- and inter-department and inter-agency team work and made a huge difference in the strategic thinking of the New York City Fire Department,” said Vincent Doherty, a former captain and executive officer for hazardous materials operations for the New York City Fire Department and a member of CHDS’ inaugural class, now CHDS’ roving ambassador.

“We’ve advanced by leaps and bounds since Sept. 11, in great part because of the number of officers who have attended the CHDS program,” agreed Ted Jankowski, a colleague of Doherty’s and a member of the second CHDS graduating master’s degree class who responded as captain of Brooklyn’s Engine Company 216 on Sept. 11.

Closing out the second day of the conference was the annual meeting of the CHDS Alumni Association with remarks by the Administrator of the Transportation Security Administration, Kip Hawley.

For more information about the Center and its programs, go to www.chds.us.
There is no photo, video or news report that can tell the tales of our modern day war fighter as well as hearing the stories from the warriors themselves. The Naval Postgraduate School Foundation recently had the privilege of hosting a gathering to listen to these “Stories From the Frontline.”

The regularly scheduled event is held to give NPS students a chance to expose the community to what is currently happening in the war in Iraq from not only a soldier, sailor or marine point-of-view, but from a leader’s perspective.

“This is one of the ways we thank NPS Foundation members for joining. We host different events and for this one they got to listen to these professionals tell their stories,” said retired Rear Adm. Merrill Ruck, Executive Director of the NPS Foundation. “We encourage our members to bring family members and friends to our events so they can see and listen and think about possibly joining.”

The stories told by the presenters painted a raw portrait of hope and humanity that most news outlets have ignored. One such vignette was told by Marine Maj. Adam Lefringhouse who shared the story of a Petty Officer Second Class Hospital Corpsman (HM2) who had found a baby boy whose mother and father had been severely injured by an Improvised Explosive Device (IED).

“When I first saw this HM2 walking with a child in her arms, I asked her what she was doing” Lefringhouse began. “She explained to me the situation and that the parents were injured and that she had volunteered to transport the child.

“She told me the boy’s mother and father were driving when an IED on the side of the road exploded. Luckily the child was spared any injury. The three were medevaced to Balad to receive medical treatment. The mother and father were severely injured and had to remain in Balad for an extended period of time and could no longer care for the child, so contact was made with the child’s extended family in Akashat near Korean Village in South Western Al Anbar. The HM2 volunteered to escort the child back,” Lefringhouse continued.

“She was on her second or third day of her journey with the child when I met her,” continued Lefringhouse. “The distance she traveled was more 400 miles to get the child to Korean Village, and another 400 to get back.

“Someone asked how my experiences had changed me,” Clemmer continued. “That really brought into focus how less than one percent of the population of this country is actually doing the fighting. Combat, taking life, seeing the aftermath of a fight is a dramatic event to say the least, and for me has made life even more precious.”

For more about the NPS Foundation visit www.npsfoundation.com.

Professor Receives Choice Award

By MC3 Kellie Arakawa

Naval Postgraduate School Distinguished Prof. Thomas Bruneau began the academic quarter in a way he had never done before- with an announcement that he had won an Outstanding Academic Title award from Choice, one of the most prestigious sources of academic reviews.

Just after the start of the 2008 winter quarter, Bruneau was notified that he received a 2007 Outstanding Academic Title award for a book he co-edited with Scott Tollefson titled, Who Guards the Guardians and How: Democratic Civil-Military Relations, for the comparative politics subcategory within the social and behavioral sciences discipline.

According to Choice Reviews Online, the editors of Choice apply several guidelines to select the year’s best academic titles: “overall excellence in presentation and scholarship, importance relative to other literature in the field, distinction as a first treatment of a given subject in book or electronic form, originality or uniqueness of treatment, value to undergraduate students and importance in building undergraduate library collections.”

Bruneau, a distinguished professor in the National Security Affairs (NSA) department and the program manager for Latin America in the Center for Civil-Military Relations, described the book as a synthesis of lessons learned by countries that have attempted to assert civilian control over the military and other security forces.

He was motivated to write the book by the gaps between what he saw in civil-military relations literature and what was going on in the real world. Most of the books and articles he found were “heavily theoretical and not very well focused.”

Zoltan Barany, a professor at the University of Texas at Austin, reviewed Bruneau and Tollefson’s book in the April 2007 issue of Choice magazine.

“This excellent volume explains the ways in which political and military institutions may structure civil-military relations and create effective and politically reliable armed forces,” he wrote. “Particularly valuable are the chapters by editor Bruneau and Jeanne Kinney Giraldo … this is one of the most useful books published on civil-military relations in the last 50 years.”

NPS was recently ranked among the top 10 schools in the 2006-2007 Faculty Scholarly Productivity Index for international affairs and development, and Associate Prof. Harold Trinkunas, NSA Department Chairman, said the award helps NPS compete nationally.

“There are lots of people out there with security-assistance funds conducting programs, but no one is publishing books,” said Bruneau. “So that’s the great thing about NPS, we’re academics as well. We’re trying to stand back and say, ‘What does this all mean?’ and contribute to the literature.”
NPS Helps DoD, Navy Plan Communication Strategies
by MC3 Kellie Arakawa

Gone are the days when communication plans could simply be handed over to public affairs for dissemination. The increasing importance of communication planning and strategy has caught the attention of many government and military leaders, who are now turning to the Naval Postgraduate School for help.

Communication strategy has become such a crucial issue that it was listed as one of the five major initiatives in the 2006 Quadrennial Defense Review.

“We see that the environment is changing tremendously,” said NPS Associate Prof. Gail Fann Thomas. “You look at the digital age, you look at what’s happening in other countries as far as globalization, and we know that we can’t communicate like we did 10 years ago, that’s not going to work.”

In response to the growing demands for strategic communication plans, retired Vice Adm. Phil Quast, the U.S. Navy Executive Learning Officer, organized the development of strategic communication workshops at the NPS Center for Executive Education (CEE).

To develop the workshop’s curriculum, CEE partnered with the Annenberg School for Communication at the University of Southern California. “They’re considered a world-class school in this particular area,” said Thomas, who is also the workshop program manager and academic advisor.

Teams from various military commands and defense departments attend the three-day workshops ready to discuss communication issues they face in their organizations. Briefings given by professors and senior officers lay the educational foundation for participants, while small group sessions broken down by commands give teams an opportunity to work on building communication plans that align with their strategic initiatives.

“We know we don’t have all the answers,” Thomas said. “What we do is engage in some great conversations, pushing people to examine their assumptions and challenge what they’re currently doing.”

There are no plans yet to start a degree program, but Robert Beck, Dean of the Graduate School of Business and Public Policy said that with the tremendous momentum that strategic communication is gaining, the possibility of offering courses in the subject may be open for discussion, given the right amount of student demand.

While the goal of the workshops isn’t to offer an all-encompassing solution to strategic communication issues, they often serve as an important first step for many organizations that are beginning to align communication plans with their strategic objectives.

“Everyone admits that we don’t know everything about this and there is a long ways to go, but there has been real progress in a number of different areas, which is really exciting,” said Thomas. “When I look back at where we were two years ago or even a year ago, it is impressive what people are doing.”

NPS Achieves Top 10 Ranking for NSA Faculty Scholarly
by MC3 Kellie Arakawa

For the first time the Naval Postgraduate School has been ranked with schools such as Columbia University, Johns Hopkins University and the University of California, San Diego for faculty scholarly productivity (FSP) in international affairs and development.

Each year, the Chronicle of Higher Education collaborates with Academic Analytics, LLC to compile a list of 375 doctorate-granting universities and measure faculty productivity based on factors that include books published, journal publications, citations of journal articles, federal grant dollars awarded and honors and awards.

For the 2006-2007 FSP list, the NPS security studies program was ranked number nine in the country for international affairs and development.

The National Security Affairs (NSA) department specializes in international relations, civil-military relations, security policy and regional studies. More specifically, the program focuses on educating foreign area officers and political affairs specialists who are preparing for positions that require knowledge of regional parts of the world and their respective security and strategic issues, explained Associate Prof. Harold Trinkunas, NSA Department Chairman.

“This highlights quality at NPS and the fact that NPS is an institution that’s competing nationally with other civilian institutions that are very reputable ... it’s nice to be in that league,” he said.

There is an added benefit on an internal level, because the department has been placing a significant amount of focus on the quality of teaching and research among faculty, and Trinkunas believes the latest ranking confirms that such an emphasis is working.

“For the students it means that they’re getting higher quality education with people who are really working on the cutting edge of security issues,” he added.

Trinkunas ultimately credited the school’s ranking to support from NPS leaders. “We’ve had great support from the provost in hiring faculty, so that’s what helps drive this,” he said.

“A lot of universities use this as a tool to look at where they stack up compared to other universities and where they should invest their money, efforts and where they need to get better,” Trinkunas continued. “So in a sense this almost tells us at NPS and our leadership at NPS that their investments are being rewarded, that investing in high quality faculty is paying off.”

Rebecca Weintraub, a professor at the University of Southern California’s Annenberg School for Communication, leads a discussion during the strategic communication workshop.
Jim Wirtz Begins New Position as Interim Dean of SIGS
by MC3 Kellie Arakawa

W hen Naval Postgraduate School Prof. Jim Wirtz first received news of his appointment as Interim Dean of the School of International Graduate Studies (SIGS), he was excited to take on the new challenge, but was somewhat pensi ve, due to the idea that he would have to suspend what he considers to be one of the best jobs in the world - a professor at NPS.

On Feb. 1, Wirtz officially began his term as the Interim Dean of SIGS to provide a committee time to conduct a national search for a permanent dean.

Despite having to put his job as a professor on hold, Wirtz said he is excited about the opportunity and will be challenged with having to follow in the footsteps of retired Lt. Gen. Robert Ord, who served as the Dean of SIGS for more than five years.

Wirtz stepped into his new position with 18 years of NPS experience behind him. Not only was he the Chair of the National Security Affairs Department for four years, but he has worked with all of the programs and organizations within SIGS.

Most importantly, Wirtz said he understands the fundamentals of teaching, research and administration at NPS.

In an announcement to the school, Provost Leonard Ferrari wrote, "Jim brings a wealth of leadership, experience and scholarly excellence that will serve the School of International Graduate Studies well while the search for a permanent Dean continues ... I am confident that he will provide steady leadership during this period of transition."

Wirtz highlighted the importance of the SIGS administrative team and the valuable support they provide. "I am fortunate that the SIGS office staff are highly professional and proficient on the topics pertinent to a Dean of SIGS," said Wirtz. "They are a great group of people and are very eager to make the transition a success."

Pakistan’s National Defence University President Visits NPS
By Barbara Honegger

A high-level Pakistani delegation visited the Naval Postgraduate School Jan. 24-25, led by the president of the country’s National Defence University (NDU), Lt. Gen. Mohammed Hamid Khan. Khan was at NPS to learn more about the university’s academic organization for possible application to NDU’s programs.

"What we’ve learned is very valuable and is opening and expanding our view of the possibilities for structuring our own programs," Khan said. "We’re exploring how we might apply the way NPS organizes its curricula and degrees to three programs we’re adding to our NDU curriculum – nuclear strategy, government and public policy, and peace operations and conflict management."

While at NPS, Khan, left, was presented with a painting of Hermann Hall by Chief of Staff Air Force Col. David Smarsh, center, and Provost Leonard Ferrari.
Center for Executive Education Sees 300 Percent Growth

By MC2(SW) Corey Truax

This growth also increased the range of opportunities for NPS faculty campus wide to participate in executive education program offerings in many varied ways.

CEE Director Ron Franklin feels there are a number of factors working in the Center's favor to account for this growth, the primary explanation being an increased appreciation for executive education at the highest levels of the Navy. Noteworthy too, is the fact that retired Vice Adm. Phil Quast, the Executive Learning Officer (ELO) of the Navy, has fostered the emergence and development of the NPS CEE as the official Navy corporate university.

"This place had been a small-scale executive learning center since 1999, but it didn't start to have a large clientele until 2002 when the ELO organization under Admiral Quast was formed," explained Franklin.

Franklin feels that CEE's number of courses and students attending are only going to increase as time goes on. "There's an expression in the business world that goes something like this, 'If you do what you've always done, you will get what you've always got.' That's a violation of the goal of executive education in general. You can't strive for the same results. You must always strive for better."

Admiral Inman Visits NPS

By Capt. Tim Doorey

Naval intelligence legend retired Admiral Bobby R. Inman, visited NPS on Feb. 12, where he participated in several meetings and delivered a Secretary of the Navy Guest Lecture to the NPS student body.

It had been a decade since his last visit to the School, and he took the opportunity to meet and share his experiences with a new generation of Navy intelligence professionals and faculty. During his day-long visit, NPS’ Senior Intelligence Officer Capt. Tim Doorey briefed Inman on the various NPS curricula offered to the approximately 1,800 resident students. He also presented examples of the research being conducted by the 570 faculty members at the school, and ongoing efforts to expand graduate education opportunities for more military and civilian intelligence professionals. Inman then met the Director of the Cebrowski Institute, Professor Peter Denning, and other select faculty.

Inman presented a two-hour classified review to Doorey's Joint Intelligence Seminar of approximately 35 active and retired Naval Intelligence, Information Warfare, Air Force and Army officers of U.S. intelligence beginning with George Washington’s time. He skillfully wove his own career into the story of post-WWII intelligence, sharing his personal experiences from the mid-1950s until his retirement in 1982.

During the presentation, young, and not-so-young, intelligence officers were captivated by what had been before dry historical case studies such as the Cuban Missile Crisis in 1962; the North Korean seizure of the USS Pueblo in 1968; and Iranian Hostage Rescue attempt in 1980 came alive with an insider perspective.

Inman told students that graduate education for the professional development of the career intelligence workforce is a way to retain the intelligence community’s best and brightest people. He also stressed unforeseen benefits, such as building trust across interagency and international lines. He told a story of breaking a logjam between the Navy and the National Security Agency (NSA) over Signal Intelligence data access with a friendly appeal to a National War College classmate. He said that had he not had the opportunity to meet this senior NSA official in an academic environment, it is unlikely the NSA leadership would have agreed to hear his pitch on why the Navy needed the data.

Admiral Inman offered his advice for a successful career in Naval Intelligence, "...do things you like, be good at it (or don't do it) ... and trust is simply vital." He also pointed out, "A sense of history helps ... and it also helps to be lucky."

However, one could surmise from his incredible grasp of detail and articulate descriptions of events decades earlier that luck had little to do with his meteoric rise from ensign to four-star admiral.
In an effort to bridge the gap between existing literature on defense reform and the realities of the current global-political environment, Naval Postgraduate School Distinguished Prof. Thomas Bruneau and Associate Prof. Harold Trinkunas spent more than two years editing a book that examines global trends on civil-military relations and defense reform.

Sponsored by the NPS Center for Civil Military Relations, Global Politics of Defense Reform consists of case studies from Europe, Asia and North and South America that analyze the affects of democratization, globalization, economic liberalization and technological innovation on civil-military relations and defense reform processes.

Bruneau and Trinkunas turned to the expertise of their colleagues for many of the book’s supporting chapters.

Cmdr. Rebecca Stone, Interim Dean of the School of International Graduate Studies, contributed to the book with a chapter titled, ‘Changing International Threat Perceptions,’ and National Security Affairs (NSA) Assistant Prof. Anne Clunan wrote about “Globalization and the Impact of Norms on Defense Restructuring.” NSA Prof. Douglas Porch contributed to the book’s case studies with a chapter on preserving autonomy amidst conflict in Colombia, and NSA Assistant Prof. Michael Malley wrote about the challenges of defense reform in Indonesia.

NPS Board of Advisors Chairman Kim Wincup co-wrote a case study on defense restructuring in the U.S., and NPS alumnus Marcos Robledo, International and Security Policy Advisor to the president of Chile, contributed to the volume with a case study on Chilean civil-military relations.

“NPS is pretty successful at these particular kinds of issues related to national security and international security, because of the experience of our faculty and the kind of students we have,” said Trinkunas, Chairman of the NSA Department.

“This was a great opportunity to get people together to work on an issue that was immediately relevant.”

Trinkunas said they want people to realize that political context plays an important role in the success of defense reform efforts and can’t be achieved with purely technical processes or standardized solutions.

“Military reform is a very important subject in general to the U.S. government,” he continued. “We see the U.S. pushing for reform around the world, and we’re providing knowledge on how the context and politics in which that takes place affects the ability to succeed.”

Bruneau and Trinkunas also hope the book draws greater attention to the academic authority of NPS’ security programs.

NPS focuses not only on security practices but the study of theoretical issues as well, and publishing this book through an academic press with blind reviews from other professors really validates our knowledge, Trinkunas said.

“We’re trying to make a contribution to the study of these critically important topics,” added Bruneau.

“To get something like this out is going to call attention of the academic community to our group of people working on important topics and making a contribution that has academic credibility.”

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**Professors Provide New Insight**

By MC3 Kellie Arakawa

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**NPS Shows High School Students Fun Side of Science**

By MC3 Kellie Arakawa

A group of high school students from the Monterey Academy of Oceanographic Science (MAOS) huddled on the lawn in front of Spanagel Hall as they watched Naval Postgraduate School staff members load a canister of liquid nitrogen into a barrel of water.

Despite the rain, students shrieked in excitement and scrambled across the wet grass as tennis balls exploded from the barrel and flew nearly five stories high.

While the water cannon provided students with moments of entertainment, it also provided a lesson in thermal expansion and was the first of five science and technology related activities they participated in during their visit to NPS Jan. 25.

MAOS is a college preparatory academy at Monterey High School that offers students a challenging curriculum that not only prepares them for four-year universities, but helps them develop a greater understanding of science and technology through field trips, hands-on projects and internships.

Cmdr. Rebecca Stone, a permanent military professor for the Oceanography and Meteorology Departments, rallied different departments to provide students with a variety of demonstrations and activities.

Stone said it’s important for NPS to reach out to these students because it gives them an opportunity to meet professionals who are working in science-related fields.

Students met with Meteorologist Dick Lind and Associate Prof. Qing Wang and launched a weather balloon from the roof of Spanagel Hall.

In addition, students got the chance to strap on Global Positioning System (GPS) devices to gain a better understanding of how satellites track movements and locations. They went on treasure hunts for candy and mapped designs in the quad that were later transmitted onto a satellite map of NPS.

Students were also taken to the Physics Department to meet with Lt. Cmdr. Keith Baravik (left) who showed them his thesis project: a small, robotic device can be controlled manually or placed on autonomous mode, which activates sonar that senses objects in its path.

The MAOS students closed their visit with an acoustics demonstration by Associate Prof. Andres Larraza and Associate Prof. Bruce Denardo.

The professors showed them the different ways sound can be created, the effects of varying temperatures on sound and how sound waves can be visualized.

As the students prepared to depart NPS, they were treated to hot chocolate, cookies and prizes. Even though the rain had persisted throughout their visit, the science-minded students never allowed it to hinder their enthusiasm or eagerness to learn.
Graduating NPS students received a personal congratulations from the Chief of Naval Operations (CNO) Adm. Gary Roughead as they walked across the stage in King Hall during the 2008 Winter Quarter Commencement Ceremony March 28.

NPS President Dan Oliver introduced Roughead as an "accomplished professional, a distinguished scholar and a dedicated public servant." He called the 29th CNO an inspirational leader and a strong supporter of NPS.

"It is very special for us to have him here so very early in his tour as the Chief of Naval Operations," said Oliver. "I am proud and delighted to have him here with us on the podium today."

Roughead praised the graduates and noted the importance of their experience at NPS. "Your time here has been a chance for all of you to examine and explore those issues which will confront our Navy, our armed services, the navies and armed services of other countries and the agencies with which we work ... it has been a chance for you to reflect on your future as an officer and as a leader," he said.

"At the end of the day, it's not been about grades, it's not been about the papers or about the projects," Roughead continued. "It's been about an experience and a time to think about what you will do in the future - in the future of your service and in the future of your nation. The papers may be lost, the projects may be forgotten, but what will remain are those revelations that you had, those lessons you learned and the visions that you have developed by being in this extraordinarily rich environment. They will shape your perceptions and more importantly, they should shape your actions as war fighters and as leaders."

Roughead called upon the graduating class to deliver their lessons learned at NPS to the people they will lead into the future. From engineering to foreign relations, he advised the graduates to integrate their new education with what their fellow service members have been learning in the fleet.

"The combination of your intellectual exploration, your experiences and your minds, combined with what they are doing will continue to make us a force for peace in the years ahead," he said. "That is what will ensure our safety, our security and our prosperity well into the future."

In closing, Roughead offered the 241 graduates one last lesson before their return to the field and fleet. "On a personal level, my advice to you is to continue to learn," he said. "Never stop exploring, never stop reading, never stop focusing on the things that began here in your studies and advancing them and influencing the events ahead."

He also encouraged them to take time to think, because "that is what those you lead need of you the most. Your intellectual effort, the way that you approach a problem - that is a critical part of leadership."

Finally, Roughead advised the graduates to maintain balance in their lives. It is important to balance both personal and professional aspects, because that too, he said, is expected of a great leader.

As the CNO shook the hand of the final graduate, family members and friends burst into a joyous applause and took to their feet in honor of the school's newest alumni.

"NPS graduates, you should be justly proud of what you have accomplished here," said Oliver. "We will be proud to call you NPS alumni and we will look forward to hearing great things about you in the future."

Following the commencement ceremony, Roughead met with the graduates at a reception in the Barbara McNitt Ballroom.

Lt. Raja Hussain, the recipient of a couple of prestigious awards (see related article next page), joined Oliver, Roughead and NPS Provost Leonard Ferrari in a cake-cutting ceremony.

Hussain, a foreign area officer who earned a master's degree in Security Studies and graduated with distinction, credited his achievements to positive habits and discipline. His advice to prospective students is to engage professors outside of the classroom. "There's much more to be learned than in the hour and 50-minute segment of the day," he said.

Chief Cryptologic Technician Interpreter Kevin Tyson, a graduate of the Security Studies program and the only enlisted member of the 2008 winter class, highlighted the value of his NPS education. "I'm a Korean linguist and my work has been involved with East Asia for the last 20 years. This degree program fit well with my professional knowledge and will definitely help me as I move to my next duty station," he explained.
Bronze Star Winner, Faculty and Students Hailed at Winter Awards Ceremony

By Barbara Honegger

The Naval Postgraduate School recognized a Bronze Star winner, two faculty members and 19 students for outstanding academic and instructional achievement at the Winter Quarter 2008 awards ceremony in King Hall, Mar. 18. The ceremony, officiated by Dean of Students Capt. Kathryn Hobbs, recognizes the highest levels of achievement in academics, instruction, research, and community service.

President Dan Oliver presented the Bronze Star to Air Force Maj. Jason L. Lemons, for exceptional service in Iraq prior to coming to NPS. Lemons’ father, former Deputy Secretary of the Veterans Administration for Benefits L. Lemons, was present to see his son receive the award for meritorious bravery.

Navy Lt. Raja G. Hussain, a foreign area officer, received the university’s highest academic honor, the Monterey Council Navy League Award for Highest Academic Achievement, as well as the Louis D. Liskin Award for Excellence in Regional Security Studies.

“This whole experience – coming to America and becoming a U.S. citizen and U.S. military officer, being selected as a Foreign Area Officer, and now this award – has been a dream come true for me,” said Hussain, who was born in Pakistan. “I just look forward to giving back as much as I can to this country that has given so much to me. Being a student at the Naval Postgraduate School, which is of the caliber of Harvard and MIT, greatly increases what I will be able to give back to my country.”

Two faculty awards were presented at the ceremony. The Richard W. Hamming Award for Interdisciplinary Achievement went to retired Navy Capt., NPS alumnus, Operations Research senior lecturer and program manager for NPS’ Maritime Defense and Security Program, Jeffrey Kline. Kline’s academic and research focus is applied analysis of maritime warfare and security missions. The Lieutenant Commander David L. Williams Outstanding Professor Award, named for the NPS alumnus who died at the Pentagon on Sept. 11, was presented to former Commander of the Office of Naval Intelligence, NPS Senior Lecturer and Director of Intelligence Research at the NPS Center for Homeland Defense and Security, Robert L. Simeral. Simeral’s expertise is in intelligence, and integrating federal, state, local and private sector intelligence into a seamless national intelligence enterprise.

“It is a great honor to receive the Richard W. Hamming Award for interdisciplinary excellence at the Naval Postgraduate School,” Kline said. “I’m just happy to be part of that larger enterprise, and to make real contributions to our nation’s security.”

“It’s an especially deep and personal honor for me to receive an award named after Cmdr. David Williams, who died at the Pentagon on Sept. 11,” noted Simeral. “As Commander of Naval Intelligence that day, I lost seven naval intelligence officers I’d assigned to the Naval Command Center.”

In addition to Lemons and Hussain, the other students recognized for outstanding achievement were:

Air Force Maj. Thomas J. O’Connell, Jr. – Outstanding United States Air Force Graduate Award, Department of National Security

Romanian Army Col. Valentin Simion – Outstanding International Student Award, School of International Graduate Studies

Air Force Capt. Andrew M. Frey – Naval Postgraduate School Outstanding Academic Achievement Award for Defense Student; and the Air Force Association Award for Outstanding U.S. Air Force Student

Bahrian Air Force Lt. Col. Waleed I. Al-Mannai – Naval Postgraduate School Outstanding Academic Achievement Award for International Students

Air Force Maj. Ryan Craycraft – Naval Postgraduate School Superior Service Award

Marine Corps Maj. Ivan J. Kanapathy – Marine Corps Association Superior Service Award for Outstanding U.S. Marine Student

Mr. Kok Kiang Cham, Singapore Defence Science and Technology Agency – Armed Forces Communications and Electronics Association Award

Lt. Ben Abbott – Military Operations Research Society Stephen A. Tisdale Graduate Research Award; and Surface Navy Association Award for Excellence in Surface Warfare Research

Lt. Cmdr. Scott B. Hattaway – Chief of Naval Operations Award for Excellence in Operations Research

Lt. Cmdr. Roy Garrison – Rear Admiral Grace Murray Hopper Information Technology Management Award

Marine Corps Capt. Joseph E. O’Connor – Space and Naval Warfare Systems Command Award in Electronic Systems Engineering

Naval Reserves Lt. Ryan M. Mudd – Chief of Naval Personnel Award for Academic Excellence in Manpower Systems Analysis

Lt. Cmdr. Aron S. Carmann – Chief of Naval Personnel Award for Academic Excellence in Manpower Systems Analysis

Republic of Korea Army Capt. Chang-Kyu Chang – Graduate School of Business and Public Policy Faculty Outstanding International Student Award

Australian Army Capt. Benjamin M. Cook – Graduate School of Business and Public Policy Faculty Outstanding International Student Award

Four students received their awards in absentia:

Lt. Cmdr. Jeffrey A. Buringa – Rear Admiral Thomas R. McClellan Award for Academic Excellence, Graduate School of Business and Public Policy

Lt. Michael R. Dolbec – Joint Rear Admiral Jack Jarabak/Assistant Secretary of the Navy for Research, Development and Acquisition/National Defense Industrial Association Award for Excellence in Undersea Warfare

Ms. Sarah Fisher, Emergency Response and Security Manager, California Administrative Office of the Courts – Curtis H. “Butch” Straub Achievement Award, Center for Homeland Defense and Security

Two women stepped into Herrmann Hall at the Naval Postgraduate School to revisit a time when the building buzzed with celebrity guests and served as a symbol of early 20th century glamour.

Elaine Snell and Norma Prince, former employees of the Hotel Del Monte, met with John Sanders, Special Collections Manager, to tour the premises and provide personal memories of a hotel that was once called, "the most elegant seaside resort in the world."

The Hotel Del Monte was first built in 1880 and hosted the most notable celebrities of its time, which included presidents, Hollywood stars, artists and business executives.

However, after the launch of the U.S. involvement in World War II, it ceased operations and the Navy requisitioned the resort to serve as a military installation.

Snell and Prince were employed at the resort just prior to its turnover to the military. Snell worked as a stenographer from 1939 to 1942, while Prince was first employed as an elevator operator in 1940 and worked at the hotel until the start of the war.

The women began their tour with Sanders on the Quarterdeck, which was once the main lobby of the hotel. The room evoked fond memories for Prince, who said the lobby once exuded a special ambiance and warmth. "It was just magical," she added.

Snell said she cherished the gardens, which were her favorite part of the hotel grounds. "I walked through the gardens every day," she said with great affection. "I think I knew every flower for blocks around, because it was kept so perfectly beautiful."

They also shared memories of the hotel’s polo matches, swim meets, elegant dances and celebrity guests. Snell adoringly referred to her time at the hotel as "the glamorous days."

Snell revealed that she was present at a meeting just after the Pearl Harbor attacks where Morse and military officers discussed the potential sale of the hotel. As the hotel’s stenographer, she took notes and dictation, and later transcribed them.

If the transcript was archived, it may provide important insight into the transition of the resort to a military command.

Sanders emphasized the importance of examining the historical tie between the Hotel Del Monte and NPS, because "to truly understand this institution we have to be able to flesh out some of the antecedents," he said. "In doing that, we’ll find benefit for NPS."

As the special collections program prepares for the school’s centennial celebration, Sanders said he found incredible value in their visit, because it helped surface an important development that may shed new light into the school’s history.
The Centennial committee has been working diligently on creating an image for the upcoming NPS centennial. The first step will be ordering lamp pole banners for placement on and around campus.

While the banners may be the most visible use of the logo now, the NPS Foundation will soon be getting new coffee mugs, sweatshirts, t-shirts, and other items promoting this historic event.

Sarah Farley and Mike DiFranco are responsible for the unique design of both the logo and the banners.

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