NPS Students Explore Unmanned Systems

By Amanda D. Stein

In recent years, the Department of Defense has increasingly integrated the use of Unmanned Air Systems (UAS) into a number of missions, from aerial surveillance to data collection.

In the growing field of unmanned systems, NPS researchers continue to explore ways to maximize the efficiency and capabilities of lightweight, portable UAS, and use them to give the warfighter a leg up over the adversary.

For Systems Engineering students, Marine Corps Captains Derek Snyder and Dino Cooper, the mission is to make a back-packable UAS a multi-dimensional tool, capable of fulfilling more than intelligence, surveillance and reconnaissance operations. Their research focuses on equipping the UAS with retrofitted, consumable kits that could assist in a variety of missions, from enemy tracking to carrying small arms to counter snipers.

"Rather than reinventing the wheel and developing a UAS from the ground up for a specific task, why can’t we capitalize on what we have already and make slight modifications to adapt to new situations?" - Capt. Dino Cooper

Snyder explored small-arms capabilities for UAS, which could ultimately deliver lethal or non-lethal force, while Cooper looked at attachments for UAS that would deliver perfluorocarbon taggants, largely undetected.

"The goal is that the adversary won’t know that you’ve been there," explained Snyder. "The airplane doesn’t touch the ground. There won’t be any footprints. You don’t want there to be any convoy activity. So, if a small, battery powered airplane delivers taggant, they really won’t know that it happened."

Snyder and Cooper have completed their theses and are scheduled to graduate in September, but they hope that the research on UAS will continue.

"With the technology available to us, we have to be equally as innovative as our adversaries," explained Cooper. "They have the ability to look at technology in such a simple way and use it to their advantage."

"With our investments in technology, we should be able to do that on our end as well," he continued. "We can look at what’s readily available. Rather than reinventing the wheel and developing a UAS from the ground up for a specific task, why can’t we capitalize on what we have already and make slight modifications to adapt to new situations?"
Over the past year, I have taken a couple of opportunities to address our campus community through the forum of “Update NPS,” and while the specific subject of each message has varied, there has been a common link in each of these letters – that of values.

In both military and academic circles, the topic of values has become increasingly more visible as organizations determine how to best govern themselves. Values are, in the simplest of terms, guiding characteristics that dictate an institution’s fundamental philosophy. And I believe values are tremendously important to the successful execution of our mission.

In November of this past year, I focused my message on the issue of civility, and its role in an academic environment where the give and take of differing ideas forms the core of our endeavors. This past January, I focused on our responsibility to demonstrate the highest of ethical standards – this is an ongoing and ever-present priority across campus with several departments and research efforts committed to this important issue.

In this message, I would like to explore the theme of excellence – a qualifier frequently mentioned in connection with the Naval Postgraduate School. We all like to define NPS as a community striving for ‘excellence through knowledge,’ but what exactly do we mean by that? For me, excellence breaks down into several core areas: relevance, responsiveness, quality and stewardship.

Here at NPS, we constantly strive to maintain and create curricula that respond directly to the research and education needs of today’s defense environment. We have initiated recent programs in disciplines such as cost estimation and analysis, and human systems integration, to answer a direct need of the Departments of Navy and Defense. And we are in development of new programs in energy and cyber that are in direct response to the needs of our entire national security enterprise. Our students and faculty pursue research that translates immediately to the field, we need to look no further than our Field Experimentation program for examples of several technologies that have gone from thought to fleet.

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Being relevant goes hand in hand with responsiveness and is a key trait that sets NPS apart from more traditional civilian institutions. Here, we work to open up new programs as quickly as the guidelines of our accrediting bodies allow, getting defense professionals the knowledge base they require today. Our ability to do this comes from a faculty well versed in current defense needs that are also up-to-date with recent advances in their respective fields. And it comes from the flexibility inherent to our academic programs as well as to our determined faculty, staff and administrators to get the job done.

Yet for all of our relevance and quick response, NPS would not have the reputation it does without also maintaining high quality. The notion of continuous improvement is engrained deep within the NPS culture. Recent reviews by external accrediting bodies, both regional and programmatic, have resulted in renewals for the longest possible terms.

Finally, while responsiveness, relevance and quality will always be guiding principles for the Naval Postgraduate School, we must also be unwaveringly committed to our responsibilities in stewardship. As stewards of funding provided by the American taxpayer, we must always be focused on continuous process improvement, even with these recent successes. To this end, Academic Affairs has initiated several new mechanisms for systematic evaluation and improvement to ensure this quality continues.

For a unique institution such as ours, where diverse communities converge onto a single campus to provide an education unlike any other, a commitment to strong, determinative values is imperative. Our excellence, formed by an intertwined linkage of relevance, responsiveness and quality, is one of a handful of core values that we must hold true through all of our efforts.
NPS Student Named “Marine Corps Times” Marine of the Year

By MC1 Leonardo Carrillo

A Naval Postgraduate School student has been named the “Marine Corps Times” Marine of the Year for 2011, and was presented the award during a ceremony in Washington, D.C., July 21, with members of Congress and select senior Service Chiefs in attendance.

Capt. David Coté, a Naval Academy graduate and Operations Research student at NPS, was selected to receive the honor for his enduring volunteer work and inspirational sacrifices beyond his every day operational commitments. The Marine of the Year award recognizes a single Marine each year that stands out because of his or her work to improve the lives of other service members and the communities they live in.

Coté’s achievements prove exceptional in many ways. He has improved the lives of his fellow Marines by demystifying the education process and Post 9/11 G.I. Bill, he is devoted to help end veteran homelessness, and he promotes organ and tissue donation as a living example.

Although he is delighted to receive the award, the recognition for Coté simply represents the opportunity to shine a spotlight on the causes that are most important to him.

“In my mind, this award doesn’t make me any more valuable or worthwhile. I was just pursuing my passions – working on veteran homelessness, for example – and it became interesting to someone else too. I am happy about that. I hope to bring more attention to this important issue,” said Coté. “Every Marine has something they want to work for, to fight for.”

One of Coté’s most important causes is his work to help homeless veterans get back on their feet. Coté says that the problem of veteran homelessness in this country is very important because veterans are significantly overrepresented in the homeless population.

“My heart goes out to homeless veterans,” said Coté. “I am saddened that there are thousands of veterans who have served this country … and now they are homeless on the street because of the invisible wounds of war like combat stress, mental illness or chemical dependency. The military-civilian transition needs some attention too.”

Coté is also an active volunteer with the National Kidney Foundation, having himself donated a kidney to his father. Despite his exemplary volunteerism and selflessness, Coté modestly insists that he is just one amongst many Marines that deserve recognition.

“In my mind, every Marine deserves to be Marine of the Year. All Marines have passions, or causes that really energize them and excite them. What’s important is that we answer that calling. The response might take different forms, but we are all instruments for achieving something bigger. I was just pursuing my passions and it grabbed someone else’s attention,” said Coté. “If you drill down and find the story that every Marine has, any one of them could have this recognition instead of me.”

In July, a team of NPS faculty and administrators visited the National University of Singapore for the Temasek Defence Systems Institute (TDSI) graduation ceremony. Representing NPS were President Dan Oliver; Executive Vice President and Provost Leonard Ferrari; Vice President of Information Resources Christine Haska; and Vice President and Dean of Research Karl van Bibber. A number of NPS faculty attended the 9th Maritime Security Workshop, which took place at the same time. The NPS alumni in Singapore held their annual meeting as well and NPS Alumni Relations was on hand to make a presentation.

Also in July, Dr. Haska and retired Rear Adm. Jerry Ellis visited Adms. Walsh and Willard to gain their insight for the Committee on the Future (COF). They also met with Jim Ehler for an update on outreach efforts in the Pacific arena. Later in the month, Haska and Vice President for Administration and Finance, Colleen Nickles, traveled to the Naval War College to gather more input for the COF report.

During July, the following official visits occurred:

Officials from the Kazakhstan Ministry of Defense visited NPS in support of the U.S. Partnership for Peace designation.

Rear Adm. Richard Snyder, Director, Joint Staff Partnership Strategy Branch, visited NPS and met with students.

Rear Adm. Michael Brown, Director of Cybersecurity Coordination, visited NPS and attended the Classified Advanced Technology Conference.

From the Mezz provides a brief report on the activities of NPS’ senior administration. For more details on any of these reports, please contact the Office of Institutional Advancement at pao@nps.edu.
MOVES Summit Welcomes Modeling, Simulation Experts

By Amanda D. Stein

Training and preparation are key components of effective military operations, particularly in theater, but preparing for the dangers of combat in a training scenario can be dangerous and conditions difficult to replicate.

For more than a decade, NPS faculty and students in the university’s Modeling, Virtual Environments and Simulation (MOVES) Institute have examined current modeling and simulation technologies and their future in training. In order to continue the discussion surrounding the future of modeling and simulation capabilities, the MOVES Institute hosted their 11th Annual Research and Education Summit, July 12-14.

For the three-day event, experts and students gathered in the MAE Auditorium to share their areas of study and discuss the direction that modeling and simulation is headed for the future. MOVES Director, Cmdr. Joe Sullivan offered opening remarks for the summit, noting that NPS is unique in that the research being done is unlike that of any traditional university in the country.

“The MOVES degree was stood up as one of the first in the nation specifically for educating consumers in modeling and simulation,” said Sullivan. “It’s nice to talk about the strategic footing of NPS and to be able to say that MOVES is used as one of the classic examples of how we’ve executed that mission.”

The summit featured sessions on topics ranging from human behavior modeling to web-based and social networking technologies, with participation from students, faculty and visiting presenters.

Keynote speaker Rear Adm. Wendi Carpenter, Commander of Navy Warfare Development Command (NWDC), Norfolk, discussed with participants the value of preparing new generations of innovators and researchers.

“I came here today to be a cheerleader,” Carpenter said. “What I came to do today was encourage you about what you are doing for today and for the future, and how important it is. We have done a lot of work in the last year in a half with the MOVES Institute, and with the Naval Postgraduate School. And it is pivotal to what we are doing at NWDC and the way we are doing business. Modeling and simulation is pivotal for where we are going not only in the Navy, but in the rest of the Armed Forces.”

One of the highlights of the three-day sessions was the annual demo night, where participants were given a platform to showcase their modeling and simulation projects in action.

NPS Alumnus Commands Atlantis in Final Shuttle Mission

On July 8, the Space Shuttle Atlantis, Commanded by NPS alumnus, Chris Ferguson, launched from Kennedy Space Center, marking the end of NASA’s thirty-year shuttle program.

The day proved to be a bittersweet one for NASA and NPS’ space community, alike. At 11:29 a.m., Atlantis successfully launched from Kennedy Space Center, marking the beginning of its thirteen-day mission to deliver supplies to the International Space Station, and the end of the U.S. space shuttle program’s thirty-year run.

The final shuttle mission, STS-135, was commanded by NPS alumnus Chris Ferguson (Aeronautical Engineering, ‘91), and the shuttle returned safely to Kennedy Space Center on July 21.

Atlantis was the fourth orbiter built by NASA, and flew her maiden voyage on Oct. 3, 1985 with the launch of STS-51-J. Ferguson is no stranger to Atlantis, having piloted the shuttle in 2006 for the STS-115 mission. Ferguson joined NASA in 1998 and has logged 28 days in space during his two previous missions. He has also served as spacecraft communicator for four additional missions.
NPS Alumnus Pens America’s Narrative

By Amanda D. Stein

If you ask NPS alumnus Capt. Wayne Porter, Special Assistant in Strategic Synchronization to the Chairman of the Joint Chiefs of Staff, interdependence is not a weakness, but a strength. In his recently published paper, “A National Strategic Narrative,” which he co-authored with Col. Mark Mykleby, Porter looks to frame the United States’ primary interests, both current and future, to help create a contextual narrative for the country.

Porter explained the purpose and the idea behind the narrative in a Secretary of the Navy Guest Lecture to NPS students, staff and faculty, July 26. The document has been well-received in both the public and private sectors since it was published through the Woodrow Wilson Center.

“This narrative advocates for America to pursue her enduring interests of prosperity and security through a strategy of sustainability that is built upon the solid foundation of our national values,” wrote Porter and Mykleby in their narrative. “Our domestic and foreign policies will reflect unity and effort, coherence and constancy of purpose.”

A dual-degree graduate of NPS, Porter encouraged the students to not only be leaders, but to be thought leaders. With over 20 years in the Navy, he understands the demands of the job as well as the fresh new ideas that can come from young officers.

“I have a huge amount of faith in this generation because I have kids who are this generation,” he said. “I know you are full of energy, you are full of imagination, and you are fearless. And that is exactly the attitude you’ve got to assume as you go forward in your career. Just remember that you are here because you are supporting and defending the constitution of the United States, and our posterity.”

Navy Recruits Staff Through USAJOBS

By MC1 Rob Rubio

As the Navy moves forward in its efforts to improve the hiring process and reduce time to fill vacancies, it is currently in the process of transitioning from the older Civilian Hiring and Recruitment Tool system to USAJOBS.

“USAJOBS is a one-stop federal employment system,” said NPS and NSA Monterey Human Resources Director, Julie Carpenter. USAJOBS will be used for recruiting staff positions.

Carpenter noted that the Navy’s decision to begin using USAJOBS was in line with the hiring reform initiatives from the Obama administration – efforts to reduce the time it takes to fill a job, increase collaboration between the hiring manager and human resources and improve the applicant’s experience. USAJOBS is a well-established system, which is being used by a large number of other federal agencies.

Applicants must first set up a USAJOBS account and they can then apply online for jobs locally or anywhere throughout the Navy. The system is designed to be user friendly. When clicking on a job listing, the listing will provide various information from GS pay grade, target pay grade, job description and geographic location, and the user is then able to create an application online.

Carpenter remarked, “We encourage individuals to go ahead and set up an account and develop their resume, so they are ready to apply as job announcements are advertised.”

With USAJOBS, an applicant has the ability to store up to five distinct resumes, as well as the capability to upload attachments, such as letters of recommendation. The applicant can also store up to 25 different job interests and receive e-mail notifications of new job postings.

“Once a job closes, the Human Resource Service Center in San Diego will review all of the applicants and determine who is best qualified and who will make the certificate to be referred to the manager, which is when the manager sees the resumes,” said Carpenter.
Focus On … SIGS Associate Dean
A Monthly Look at Names and Faces on Campus

NPS welcomed a new member to its ranks last month when Cmdr. Bernie Wang took over as the Associate Dean of the School of International Graduate Studies (SIGS).

Wang’s duties include ensuring the military applicability of the programs in SIGS, and that the students’ military requirements are being met.

After serving as the Foreign Area Officer (FAO) Community Manager at the Bureau of Navy Personnel in Millington, Tenn., Wang stepped into the Associate Dean position with the extensive career and experience of a former Surface Warfare Officer and FAO. Wang’s arrival also marks the first time a FAO has been appointed as Associate Dean.

Having studied at the Naval War College, the Defense Language Institute, and the University of the Pacific’s McGeorge School of Law, Wang places high value on education.

“Graduate education gives you more than a body of knowledge, it also gives you a framework to analyze and look at problems of the world,” said Wang. “The biggest value of education is to be able to break down an issue and see the solution from all angles.”

Wang says that he is very grateful for his education because it has allowed him to think more analytically and approach problems in innovative ways. He hopes that students at NPS take the opportunity to achieve this analytical framework and that they can carry it with them for the rest of their careers.

Operating aboard the amphibious transport dock USS Cleveland (LPD 7), flagship for PP11, the humanitarian assistance deployment aimed to strengthen regional relationships and increase interoperability between host nations, the United States, partner nations, non-governmental organizations (NGOs), and international humanitarian and relief organizations.

“Pacific Partnership is important because the mission builds and strengthens relationships in the region while enhancing our collective ability to more effectively respond to any natural or manmade dis...

Under Wilson’s leadership, the joint multinational team, comprised of units from the U.S. Army, Navy, Marine Corps and Air Force, worked alongside military representatives from New Zealand, Australia, Canada, Japanese Maritime Self Defense Force as well as various NGOs to treat more than 36,000 patients, care for more than 1,500 animals, conduct more than 40 community service projects and complete more than 20 engineering projects in the Pacific nations of Tonga, Vanuatu, Papua New Guinea, Timor-Leste, and the Federated States of Micronesia.

According to Wilson, many of the insights gleaned from his studies at NPS directly affected the planning and leadership he provided to the force.

“Almost every day my NPS experience influences what I do. In the military we operate in a resource-constrained environment related to time, space, forces and money,” said Wilson. “The analytical framework and methodical approaches to problem solving I learned in the Operations Research program at NPS have been extremely valuable in helping me plan and execute missions throughout my Naval career.”

In addition to providing training and needed resources to key countries in the Pacific region, PP11, also supported U.S. initiatives by keeping military forces poised and trained to respond in emergency situations and the initiative directly supports a key element to the nation’s Maritime Strategy.

“Humanitarian Assistance and Disaster Response is a core mission area of the three sea services as spelled out in our Maritime Strategy,” noted Wilson. “Like any other mission area, we train to be able to execute when the order is given.”
Any Day at NPS ...

Rear Adm. Gregory Smith, a 30-year Public Affairs Officer for the U.S. military and current Deputy Chief of Staff for Communication in Afghanistan, fields questions following his remarks to NPS students during a recent SGL, July 12. Smith has served as a leader in communication for years, in the conflicts in both Iraq and Afghanistan. During his presentation, he spoke about the current challenges facing the communication efforts in Afghanistan. (U.S. Navy photo by Javier Chagoya)

By Lt. Matthew Yokeley
Chairman, President’s Student Council

It’s easy to forget sometimes how great being here in Monterey and at NPS can be. Over the past couple of months, many great changes have been occurring all over the base. Whether it be the increased amount of parking by Glasgow Hall or interior renovations to Spanagel Hall, all the improvements around campus have really made being a student here a most enjoyable experience. Not to mention right now is the perfect time to take advantage of being here, with summer in full swing!

All the changes around campus make me think of changes that have occurred in our student body over the past couple of months as well. We said farewell to many of our classmates in June as they graduated and moved on to other opportunities in their careers. An unfortunate result of this, that I would like to bring to your attention, is the need for new student involvement with the President’s Student Council (PSC). We are always looking for motivated students, interested in being an active participant in making life here at NPS better.

The PSC is dedicated to addressing issues that you, the students, want answers to. We encourage you to help out and join the PSC to make your voice heard. Right now we are looking for new representatives for our Coast Guard students and civilian students. We are also looking for students to represent the PSC on the Faculty Council and Alumni Association. If you’re interested, please contact myself or Lt. Ryan Birkelbach and start being a part today!

Lt. Yokeley is the Chairman of the President’s Student Council.
Visit the PSC on the intranet at http://intranet/psc/index.html.

Assistant Professor of Physics and Mechanical and Aerospace Engineering, Sebastian Osswald, describes Raman Spectroscopy to visitors during the Center for Materials Research Open House, July 20. (U.S. Navy photo by MC1 Rob Rubio)
August 16
Dr. David Kilcullen
Founder and CEO of Caerus Associates
Secretary of the Navy Guest Lecture
POC Lt. Jenny Phillips, Ext. 2466

August 16
Ambassador Gene Cretz
U.S. Ambassador to Libya
NSA Lecture
POC Vickie Hoy, Ext. 7748

August 20
D.C. Area Alumni Gathering
Haymarket, Va.
POC Kari Miglaw, Ext. 2077

Historical Highlights
NPS produced a student recruiting film in 1968 called “The Postgraduate Way.” The 27-minute movie includes important archival footage of NPS Superintendent Rear Adm. Robert McNitt along with several professors, students and campus scenes.

Dr. Jack Borsting was among the faculty in the movie. Then chairman of the Department of Operations Research, Borsting went on to become NPS provost. He was also elected president of three professional societies: Operations Research Society of America, Military Operations Research Society, and the Institute for Operations Research and the Management Sciences.

Borsting was appointed Under Secretary of Defense (Comptroller) in 1980 and then took the helm of the University of Southern California Marshall School of Business. He is now a member of the NPS Board of Advisors.

“The Postgraduate Way” can be viewed online in its entirety on the Dudley Knox Library Video Portal.

Historical Highlights are provided by the Dudley Knox Library.