U.S. Cyber Command Chief Inducted Into NPS Hall of Fame

By Kenneth A. Stewart

U.S. Army Gen. Keith B. Alexander, Commander of U.S. Cyber Command, and Director, National Security Agency/Chief, Central Security Service, was inducted into the Naval Postgraduate School Hall of Fame during the university’s Spring Quarter Graduation ceremony, June 21.

“Gen. Alexander’s contribution to our nation’s security and to our great institution are long standing, and will endure well beyond his tenure,”

–NPS Interim President Rear Adm. Jan E. Tighe

“It is my privilege to welcome Gen. Alexander to NPS’ distinguished Hall of fame. I was blessed to work for Gen. Alexander for five consecutive years, including a year on his personal staff,” said NPS Interim President Rear Adm. Jan E. Tighe. “I witnessed firsthand his inspirational leadership and his unwavering dedication to our nation. It is truly an honor to preside at today’s ceremony.”

Alexander earned advanced degrees in systems technology (electronic warfare) and physics while attending NPS in the 80s. Tighe commented on both the academic and professional accomplishments that led to Alexander’s induction.

Alexander’s contribution to our nation’s security and to our great institution are long standing, and will endure well beyond his tenure,”

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As head of Cybercom at Ft. Meade, Md., Alexander is responsible for planning, coordinating and conducting cyber operations, as well as the defense of Department of Defense computer networks. In his capacity as NSA director, he is responsible for a DOD agency with national-level foreign intelligence, combat support, and U.S. national security information system protection responsibilities.

“One of the most important things that we can have is people who technically understand how systems work. The more they understand how computers work together, the better they will be able to use and operate them for the good of our military,” said Alexander. “I believe educating our military force, enlisted and officer, is one of the most important things we can do and we really appreciate what you are doing here to help build that force in this area.”
Over a month ago Janie and I arrived here on the beautiful Monterey Peninsula to begin my tenure as your Provost. NPS, the Monterey Peninsula and the Central Coast are truly special places, and we are enjoying getting to know the region, and the diverse, vibrant communities and people that call it home.

NPS is emerging from challenging times and we will be much stronger in the future. This is so because our amazing people, faculty, staff and students, are demonstrating the wherewithal, fortitude, perseverance, and commitment to our graduate education and research mission to see us through.

While NPS shares commonalities with its peer academic institutions, critical differences exist as well. We are charged with educating men and women from around the globe who share a commitment to national defense, who wear the uniforms of their respective nations with dignity, servitude and pride. Ours is truly a one-of-a-kind student body composed of individuals who have heeded the call to service, and all the sacrifices that such service entails. Our students, along with our research activities and specialized education programs, make us a category-of-one institution.

Our faculty are equally unique. While the caliber of our collective expertise rivals that of the finest research universities in the nation, there is a common sense of appreciation across all faculty for the professionalism of the NPS student body. My increasing awareness of faculty efforts to educate our service members, to conduct research that contributes to our national defense, and to go the extra mile in serving their colleagues is a hallmark of this great institution.

I am also greatly impressed, and very thankful, for the tireless efforts of Acting Provost, Dr. Doug Moses, and his excellent leadership. He took the academic helm during a critical time in our institution’s history and played a key role in the efforts that have brought us to where we are today. Doug continues to support the institution in critical ways and his commitment to NPS and to me personally is overwhelming.

“My charge is to build upon the impressive, vital work already underway at this institution and to do my part supporting the students, faculty and staff as a relentless, consistent and steady advocate for the continual improvement of NPS.”

My charge is to build upon the impressive, vital work already underway at this institution and to do my part supporting the students, faculty and staff as a relentless, consistent and steady advocate for the continual improvement of NPS. We have great minds working at NPS but the heart and soul of this institution consists of our relationships with each other and our commitment to the greater good. In the all-hands to come, Rear Adm. Tighe will be addressing this and the positive things that have happened in the face of tremendous operational and organizational challenges.

As NPS moves forward, we remain confident that the university will continue to be a place where imagination, creativity and innovation spur future accomplishments; where some of the world’s finest minds will continue educating up and coming leadership corps. We are incredibly strong at NPS, because of you. Our torch continues to burn brightly despite the challenges we have faced, challenges that would easily extinguish the weak of heart. As we continue to build upon NPS’ accomplishments and refine our systems and processes, we will emerge a much stronger and more cohesive institution.

We academics hold firm to the ideal that educating others is one of the highest callings one can possess. If there is truth to that, then NPS in its dedication to the academic success and development of those who wear the uniform, who with their families make monumental sacrifices to secure the safety of our citizens, and who have committed themselves to the highest ideals of public service, is truly a place that warrants great pride.

“Update NPS” is a monthly publication for students, faculty and staff of the Naval Postgraduate School produced by the Public Affairs Office. For additional copies, comments, or to suggest story ideas, contact the editorial staff at pao@nps.edu.
NPS Adds Another Astronaut Alumnus With NASA’s Newest Class

By Dale M. Kuska

When NASA Administrator Charles Bolden announced the latest class of NASA’s eight astronaut candidates, June 17, the Naval Postgraduate School was able to add yet another space-traveling alumnus to its ranks, now totaling 41 and counting.

Lt. Cmdr. Victor Glover, an F/A-18 combat pilot currently serving as a Legislative Fellow in the office of Senator John McCain, was selected from more than 6,100 applicants to begin training at Johnson Space Center in August for potential space flight. Glover graduated from the Naval Postgraduate School in 2009 through the Master’s of Systems Engineering Management – Product Development 21st Century (SEM-PD21) program, in addition to receiving a space systems academic certificate in 2005, both via distance learning.

Glover notes the two programs, while both very different, provide a tremendous foundation for the challenging training that lies ahead of him.

“Certainly, the space systems certificate program is directly applicable,” Glover said. “It gives you the basics of communications, orbital mechanics, imaging systems … things that are very relevant to the processes of manned space exploration.”

But, he continues, his experience in the SEM-PD21 program provided an immediate payoff to his position in the Fleet.

“I was a test pilot, working in the systems engineering field, actually doing test and evaluation under the umbrella of weapons systems acquisition,” Glover said, emphasizing the direct relationship between his studies and work assignments. “My work product bolstered my school product, and likewise, my school product improved my work quality.”

“Systems engineering has really emerged over the last several years as a critical discipline for the development of systems that meet the needs of the warfighter,” added Dr. Cliff Whitcomb, NPS Department of Systems Engineering Chair. “Whether it is in test and evaluation, development, or in life cycle sustainment, it’s an engineering discipline that provides students, especially at the master’s level, with a very holistic, balanced perspective.”

Not only did the coursework provide an immediate payoff, but its simple availability to Glover was equally as valued.

“The thing that was really amazing about both of these programs is that they are distributed, and they allowed me to continue my professional development through advanced formal education where I was stationed,” he stressed. “I actually did the space systems certificate while I was deployed to the Middle East flying combat missions off the USS John F. Kennedy.”

“Lt. Cmdr. Glover completed our space systems certificate program back in 2005, and I am very pleased to see he will be able to apply some of what he learned to his ambitions in space flight,” added Space Systems Academic Group Chair Dr. Rudy Panholzer. “As a Navy pilot, it is very challenging for these officers to remove themselves from the cockpit to obtain a valued, educational experience in the classroom … This is precisely why we ensure our programs are available remotely, and in the more condensed format of our academic certificates.”

Glover says that while he is eager to get started on his training, he is also still trying to absorb the reality of his accomplishment.

“My 15 years in the Navy have been different every year, but it has definitely been an enchanted journey and I have cherished every opportunity,” he added. “Somebody else must have been in control of this other than me, because it has led me to some amazing places.”

NPS Department of Operations Research Visiting Professor Daniel Nussbaum was recently selected as a director of the International Cost Estimating and Analysis Association (ICEAA). Nussbaum was one of six nominees, elected to the open position by the ICEAA’s 2,000-plus active members.

DRMI welcomed senior leaders from thirty-plus nations to its annual Senior International Defense Management Course. The four-week course is focused on strategic planning and the economic and efficient use of scarce defense resources in complex and uncertain security environments.

Associate Professor Diana Angelis joined a team from the International Defense Acquisition Resources Management program led by Dr. Elizabeth Wright to present a workshop titled, “Building and Sustaining Accountability in Defense Acquisition Decision Making.” The workshop was conducted from May 20–24 at the Serbian Ministry of Defense in Belgrade, Serbia.

Former Secretary of Defense Leon Panetta, Marine Corps Maj. Gen. Christopher Nicholson and NPS Interim President Rear Adm. Jan E. Tighe attended the annual Education for Leadership in Public Service Seminar at the Panetta Institute on the campus of California State University Monterey Bay. Tighe was invited to the seminar to present her own views on the challenges of leadership in public service.

Nimble Titan Missile Defense War Game Director, Army Col. Michael Derrick, led a Nimble Titan 14 campaign overview in Ingersoll Hall. International civilian and military leaders attended the exercise in an attempt to foster collaboration in the missile defense arena.
NPS Leads Global Team in Nuclear Detection Research

By Kenneth A. Stewart

An international team of researchers, special forces operators, first responders and scientists led by Naval Postgraduate School Department of Information Sciences Associate Professor Alexander Bordetsky and the Lawrence Livermore National Laboratory (LLNL) recently conducted a globe-spanning experiment designed to detect and destroy ship-borne nuclear threats.

The experiment, dubbed MIO 2013, incorporated NPS’ Tactical Network Testbed (TNT) and Maritime Interdiction Operations (MIO) groups with field experiments conducted by NPS’ Center for Network Innovation and Experimentation (CENETIX) and international partners from a diverse array of disciplines.

“A central part of our TNT/MIO experiments has been the study of collaboration between boarding and detection officers and remote technical experts … In MIO 2013, we explored the collaboration between European and U.S. experts during network-controlled check points, drive-by screenings and stand-off detection during high-speed pursuits,” said Bordetsky.

In order to make Bordetsky’s vision a reality, it was first necessary to develop a handful of new technologies and then force them to work together. And his vision paints quite a robust, secure picture.

Civilian and military intelligence professionals collect human and signal intelligence from a variety of sensors and sources. Maritime officials, Navy and Coast Guard, from the both the U.S. and allied nations share information on suspect vessels. This information is relayed to experts wherever they are who analyze the threat and provide feedback which is shared with maritime officers who then board, identify and neutralize potential threats. To make all of this happen, Bordetsky utilizes mobile networks, sensors and new robotic platforms.

“We are utilizing robots for the first time with a radiological detector, never before have we used an unmanned ground vehicle with a radiological detection capability in a maritime environment, this is a historic moment,” said Bordetsky.

Another aspect critical to Bordetsky’s most recent experiment is the incorporation of Sensitive Site Exploitation (SSE). NPS student and U.S. Army Special Forces Sgt. 1st Class Christopher Linnel has been working with the NPS Department of Defense Analysis’ Common Operational Research Environment Lab to incorporate an application known as Lighthouse SSE into the MIO 2013 experiment.

“I take a photo, it is geo-referenced, and metadata is stamped on it with relevant information about the search and the organization that produced the report,” said Linnel.

Much of what Bordetsky’s team and his corporate and international partners are attempting is still in its experimental stages, but the experiment has already begun to produce results. The Department of Homeland Security has already purchased sensors, and local law enforcement groups are committed to future cooperation.

Turkish Officer Awarded Prestigious NPS Ops Research Award

Turkish Air Force Officer 1st Lt. Begum Ozcan has been selected as the Naval Postgraduate School’s spring quarter recipient of the prestigious MORS/Tisdale Award for her thesis, “Effectiveness of Unmanned Aerial Vehicles in Helping Secure a Border Characterized by Rough Terrain and Active Terrorists.”

The Military Operations Research Society (MORS) awards the MORS/Tisdale award to a student whose thesis offers immediate or near-term value to the U.S. or its allies.

“Begum’s master’s thesis is of high practical value. It is already of high interest in Turkey to the organizations responsible for helping secure the border with Iraq,” said NPS Operations Research Professor Thomas Lucas.

“My research explored the capability of UAVs to monitor terrorist activity in areas of rough terrain … I proved that UAVs are an efficient means of monitoring rough terrain and I researched the best manner in which to utilize them,” said Ozcan.
Defense Analysis Faculty Brief State Dept. Official on Anti-Gang Initiative  
By MC3 Shawn J. Stewart

Sam Farr, U.S. Representative for California’s 20th congressional district, met with NPS faculty and researchers during a campus visit, May 30. Farr brought Assistant Secretary of State for Conflict and Stabilization Operations, Ambassador Rick Barton, onto campus for an introduction to NPS’ Center for Civil-Military Relations, recognizing a direct correlation between the center’s efforts and Barton’s responsibilities.

Barton leads a relatively new effort at the U.S. State Department designed to drive efforts in conflict prevention and stabilizing crises in key developing nations. He was especially interested in hearing how innovative initiatives are applied through locally-driven solutions.

“We are interested in how we can use your ideas in places where there is a wide range of violence … and help societies in crisis,” said Barton.

NPS’ advisory partnership with the City of Salinas emerged as an excellent example. The effort began as the community wrestled with skyrocketing gang activity that put its per capita murder rate as one of the worst in the nation. Defense analysis faculty with expertise in counterinsurgency strategy were asked to assist the city in how to apply these counterinsurgency concepts to their anti-gang task force.

“No matter what you call them, gangs or youth movements, they are part of an issue that we need to understand better,” said Barton. “We are eager to hear your thoughts and have a conversation on this important topic.”

“Professionals recognize professionals … That is why Salinas’ law enforcement community joined forces with NPS to explore the parallels between guerrillas and gangs,” said Farr. “Out of [the collaboration], we have begun to understand what is causing gangs and guerrillas to mature into violent cultures.

NPS Professor Selected as Professional Organization Director  
By MC3 Shawn J. Stewart

NPS Department of Operations Research, Visiting Professor Daniel Nussbaum was recently selected as a director of the International Cost Estimating and Analysis Association (ICEAA).

“It is always an honor to be nominated by your peers for leadership positions, and I have every hope that I can live up to their expectations,” said Nussbaum.

The ICEAA is a non-profit that was formed after the recent merger of two professional organizations.

“The organization was formed last year after the merger of two legacy professional organizations in the cost estimating arena, namely the Society of Cost Estimating and Analysis (SCEA) and the International Society of Parametric Analysis (ISPA),” said Nussbaum.

Nussbaum looks forward to helping the ICEAA achieve its goal of advancing, encouraging, promoting and enhancing the profession of cost estimating and analysis through education and training.

“I expect to be involved in reaching out to other professional organizations and seeking common ground for telling people about the cost estimating profession,” said Nussbaum.

In addition to his academic work, Nussbaum is a passionate advocate of volunteerism and professional organization participation.

“We often think we don’t have time for these additional activities, but the opportunity to serve, especially a cause larger than oneself, should be thought of as a positive and rewarding opportunity, rather than as a burdensome one,” said Nussbaum.

Nussbaum was one of six nominees and was elected by the ICEAA’s 2000 plus members.
When the Minerva Initiative announced its 2013 selection of university-led proposals to fund, researchers from nearly 35 academic institutions, including seven non-U.S. universities, received approval and funding to engage in 14 separate initiatives.

During the previous Minerva cycle in 2012, three NPS faculty became members of a winning team led by the University of California at San Diego. But this year, and for the first time ever, faculty from the Naval Postgraduate School's own Department of National Security Affairs (NSA) will be at the helm of two of them.

Assistant Professor Dr. Naazneen Barma and Associate Professor Dr. Jessica Piombo received the prestigious grant to act as co-principal investigators (PI) on research aimed at examining the affects public services and foreign aid have on state building and reconstruction, while Associate Professor Dr. Maria Rasmussen received funding to lead an international team of academics delving into individual motivation and attitudes to violence and non-violence.

The Minerva Initiative is a Department of Defense (DOD)-sponsored, university-based, social science research initiative launched by the Secretary of Defense in 2008 focusing on areas of strategic importance to U.S. national security policy. The overall program is aimed at improving DOD's understanding of the social, cultural, behavioral and political forces that shape regions of the world of strategic importance to the U.S.

"Our project is on state building and building state institutions as a way to promote the peace process," said Piombo, whose research is set to take part in Cambodia, Laos and Uganda.

"We are particularly focusing on how governments deliver public services, and the ways in which that public services delivery actually contributes to peace building," she added.

One of the major questions in the research is whether international interventions in peace building, such as efforts routinely undertaken by the United States and the United Nations, actually help build peace through public service delivery.

"The research design takes countries that have had interventions, and countries that haven't, and compares the two different experiences," said Barma. "By public services, we mean things such as health care, public safety, education, electricity as a service provision."

According to Barma, whose work alongside Piombo, and co-PI Dr. Naomi Levy from Santa Clara University, is titled, "Public Service Provision as Peace-building: How do Autonomous Efforts Compare to Internationally Aided Interventions," the project was selected for Minerva research funding based on two primary criteria.

"The Minerva grants are unique to some extent because they really have two sets of criteria for evaluating the proposals," said Barma. "One is very much academic merit and the substantive content of the research, and the other is the implications research has for policy development."

According to Barma, the ability to affect policy through academic research is a driving factor for many faculty members at NPS.

Minerva Initiative to Fund Two Faculty-led Research Projects

By MC1 Grant P. Ammon

Focus On … Genuine Customer Service
A Monthly Look at Names and Faces on Campus

"It's not something I take for granted," said Club Del Monte Food Services Cashier, Norlito Guiang. "Being an American citizen has always been my dream."

Guiang is originally from Tarlac City, Philippines. He immigrated to the U.S. 10 years ago after serving 21 years as an Administrative Non-Commissioned Officer in the Philippine Air Force.

"I was excited to work here after working with the Philippine Air Force," said Lito. "I feel very good to be working with military professionals again, I am so proud to serve the military here in the U.S."

An NSAMB Morale, Welfare and Recreation employee for the last eight years, Guiang works as a cashier at NPS' El Prado Dining Facility. He became a naturalized U.S. citizen in 2010.

"I love this job because it is just so rewarding," said Guiang. "It's rewarding to extend my services to the military and civilian employees here at NPS. I value the relationships I've made with them over the years."

Guiang has a special way of greeting students, faculty and staff at NPS — he greets El Prado guests with a fist bump and a smile.

Frequent visitors to the dining facility know Guiang by his nickname Lito. He makes it a point to know his customer's names as well and often has nicknames for various faculty and staff members.

"I think it's important to know your customers," said Guiang. "I make it a priority to get to know their names, it makes them feel important. That's what customer service is all about."
NPS Electrical and Computer Engineering Department, Military Associate Professor, Cmdr. Michael Hsu shared his experiences climbing seven of the world’s highest mountains, “The Seven Summits,” with students, faculty and staff during a lecture at NPS’ Spanagel Hall, June 5.

(U.S. Navy Photo by MC3 Sean Stewart)

U.S. Naval Academy midshipmen, clockwise from left, Aaron Fleming, Kyle Hawkins, Ethan Genco and Victor Bowen, assemble in one of the NPS Cyber Academic Group Labs in Glasgow Hall. The four computer science juniors wrap up a weeks-long internship at NPS, June 18. (U.S. Navy Photo by Javier Chagoya)

NPS Research Assistant Aaron Felt makes an adjustment to the NPS-SCAT (Solar Cell Array Tester) outside NPS’ Spanagel Hall. NPS researchers are testing the ability of an NPS developed cube satellite (CubeSat) to withstand the rigors of space. (U.S. Navy Photo by Javier Chagoya)

Air Force Research Lab Chief Scientist, Dr. Jim Riker presents the keynote address at the NPS Adaptive Optics Center of Excellence’s third Adaptive Optics Workshop. The workshop explored imaging satellite and high-energy laser (HEL) beam control applications. (U.S. Navy Photo by MC2 Chablis J. Torrence)

NPS Electrical and Computer Engineering Department, Military Associate Professor, Cmdr. Michael Hsu shared his experiences climbing seven of the world’s highest mountains, “The Seven Summits,” with students, faculty and staff during a lecture at NPS’ Spanagel Hall, June 5.

(U.S. Navy Photo by MC3 Sean Stewart)

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

Have a story to share? Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to pao@nps.edu.

Any Day at NPS ...
On Campus this Month

July 9–10
Lecture for Leadership of a Complex Organization
Rear Adm. Mark Heinrich
Commander, Naval Supply Systems Command and Chief of Supply Corps

July 11
GSBPP Guest Speaker
Maj. Gen. Harold Green
Deputy for Acquisition and Systems Management Headquarters

July 17
Biofuels and Beyond Defense Energy Seminar
Mr. Chris Tindal, Office of the Deputy Assistant Secretary of the Navy for Energy

July 20–21
Asia-Pacific Seminar
Regional Security Education Program

July 11
New Spouse Orientation
Barbara McNitt Ballroom

save the date
FOR THE
2013 NAVY BALL
NAVAL POSTGRADUATE SCHOOL

Historical Highlights
One of NPS’s beloved peacocks made a big impression in 1998 when he sashayed into Herrmann Hall and decided to depart via the east transept window. While Mr. Peacock eventually escaped unharmed, such was not the case for the impressive sheet glass window that had been poured and installed for the third rebuilding of the Hotel Del Monte in 1926 and which now sported an enormous crack. According to a July 1999 article by Javier Chagoya “only Tempaglass International of Portland, OR, had the ability to manufacture such a large replacement window to contemporary safety standards. Gone was the rippled glass of yore — the new three-quarter inch tempered glass is 130 inches by 140 inches and weighs 1,300 lbs.”

Naval Support Activity Monterey continues its phased, multi-year renovation of Herrmann Hall. As part of the FY13 project the balconies will be restored, the entire building painted, and the La Novia Terrace will be returned to an outdoor patio as it was in 1926.

Historical Highlights are provided by the Dudley Knox Library.