New President Takes the Helm at NPS

By NPS Public Affairs

Secretary of the Navy Richard V. Spencer presided over the Naval Postgraduate School’s (NPS) change of charge and investiture ceremony, Jan. 29, where retired Vice Adm. Ann E. Rondeau relieved retired Vice Adm. Ronald A. Route to become the 49th president of the university.

“The Naval Postgraduate School is a pre-eminent education and research institution. But to meet our strategic needs, it must continue to grow and evolve to meet the ever changing demand signal of a changing world,” said Spencer. “If the Navy Marine Corps Team is to continue its migration to a true continual learning enterprise, NPS must lead that migration as the primary educational and research based enterprise for partnering with the private sector, government and academia.”

During the ceremony, Spencer thanked Route for his strong and steady leadership and for setting the foundation for the next phase of growth for NPS.

“The opportunity to help lead NPS is a true privilege. This is an exceptional institution, with a resident faculty expertise that remains unmatched across the DOD.”

-Vice Adm. (Ret.) Ann E. Rondeau

“I have held this institution in the highest regard ever since I was a student here in the operations research program years ago,” Route said proudly.

Following Route’s remarks, Spencer presided over an honored academic tradition known as the investiture, formally transferring the authority of the school’s president from Route to Rondeau. With esteemed tradition and fanfare, he then proudly announced the university next president to the packed auditorium.

Rondeau comes to NPS with a broad range of leadership experience that will position her to excel as the institution’s next president, Spencer noted. A 38-year Navy veteran, Dr. Rondeau most recently served as president of the College of DuPage, a two-year community college network serving more than 28,000 students in Illinois, and previously served as president of National Defense University.

“We all owe a debt of gratitude to President Route for his resolute commitment to steadfast leadership,” said Rondeau. “He has firmly established the Naval Postgraduate School as an intellectual epicenter for innovation.

“The opportunity to help lead NPS is a true privilege,” she continued. “This is an exceptional institution, with a resident faculty expertise that remains unmatched across the DOD.”
NPS Team Turns to Machine Learning to Predict Social Unrest

By Matthew Schehl

The balloon of cyber warfare has gone up, and the Naval Postgraduate School (NPS) remains at the forefront of developing vital technologies to win the fight in this very gray domain.

The Defense Intelligence Innovation Office (DI2O) recently awarded NPS’ Coalition for Open-Source Defense Analysis (CODA) lab a nine-month, $500,000 grant to proceed with development of a creative way to rapidly detect hostile information campaigns and emerging radicalization or violence anywhere in the world.

The CODA project - “Artificial Neural Networks for Automated Detection of Hostile Information Campaigns” (ANN-ADHIC) - employs machine learning to glean data from literally billions of online social media and mass media sources from more than 200 countries and 100 languages.

Detecting even the subtlest changes in linguistic patterns, the platform can predict and map out new threats in real-time, explained T. Camber Warren, the NPS Defense Analysis (DA) assistant professor who co-founded the project.

The potential applications for this technology are wide-ranging, from global strategic monitoring of hostile activity to vastly improved situational awareness of the human terrain at a tactical level.

The world is engaged in a new era of hybrid conflict, and ANN-ADHIC offers the U.S. military a competitive advantage as opponents increasingly weaponize social media to disrupt discourse and galvanize entire populations towards hostility.

The gravity of disinformation campaigns hit home beyond Russia’s effort to sway public opinion during the 2016 presidential election. It has been seen time and time again over the last decade: savvy media campaigns by the Islamic State, Boko Haram’s radicalization efforts in Nigeria, and China’s influence campaigns throughout the world. Providing operationally-relevant solutions to lean into such challenges is what NPS does best.

In 2014, Information Sciences lecturer Buddy Barreto was chatting in the hallway with a colleague about new ways to use their servers to provide “big data” support to the DA department, when Warren’s research interests came up.

“He said, ‘Hey, you need to go talk to this guy Camber [Warren] because he’s doing some pretty cool stuff and he’s got some data and he doesn’t have any place to put it’,” Barreto recalled. “I did, and the next thing you know we’ve got a new RAM box on this.

“That’s how all relationships start at NPS!” he laughed.

Barreto and Warren immediately set to work on the project which would eventually evolve into ANN-ADHIC. The CODA lab grew from a single server to well over 70 machines of various architectures to handle the copious quantity of data streaming in.

With analytical success looking at Boko Haram, Warren and Barreto aim to generalize this capability to a global reach. What makes ANN-ADHIC so advanced is that it uses artificial neural networks to figure out what statistical correlations to look for in changing linguistic patterns.

“The school provides a unique combination of cutting-edge scientific expertise and real-world practitioner knowledge, folks coming back from the field who’ve experienced these problems first-hand,” Warren said. “NPS is one of the only places where you can bring those two communities together and build things that are not only cutting-edge data science but operationally relevant.”
Safety Professional Retires with 40 Years of Federal Service

By Melinda Larson, NSAM Public Affairs

During his 40-year federal government career, Michael Berry went from tax examiner to radiological technician to occupational safety and health (OSH) officer. The bulk of his varied career occurred at the Naval Postgraduate School (NPS) beginning in 1993. He pursued the NPS opportunity after he learned the shipyard where he worked would be closed.

Before the shipyard closed, Berry was there to provide reactor plant safety oversight to more than 20 submarines and ships. He ultimately elevated to the positions of radiological controls foreman and supervisory industrial hygienist. During that time, he led the successful conversion of the Navy’s first nuclear powered submarine, the USS Nautilus (SSN-571), into a museum exhibit.

“That was a highlight of my career,” said Berry. “I was responsible for ensuring the general public wouldn’t be exposed to the hazards of ionizing radiation. Pretty funny considering when I applied for the Mare Island job, I had no idea the Navy had nuclear-powered submarines,” said Berry who calls Prairie Village, Kansas his hometown.

By the time he reached NPS, safety was a way of life for Berry and his family.

“Yes, my kids learned at an early age I always took safety into consideration for everything they did, especially when my daughter was in high school and had a boyfriend with a motorcycle,” he laughed.

In 2010, the responsibility for OSH shifted to installation management with the establishment of Naval Support Activity Monterey (NSAM). During his NSAM tenure, Berry and his safety specialists led the way for significant mishap reduction, from 37 mishaps the previous year to 13, which resulted in the installation receiving the “2014 Secretary of the Navy’s Award for Achievement in Occupational Safety and Health Ashore.”

Berry’s service was appreciated by others after he became a certified CPR instructor here with four of his former students believed to have saved lives using the skills they had learned. When the Navy shifted the motorcycle safety program to the OSH division, Berry helped establish a motorcycle safety program he can only hope helps keep riders safe.

Captain Rich Wiley, Commanding Officer of NSA Monterey, said he will miss Berry, who he presented with a Navy Meritorious Civilian Service award, the third highest Navy civilian award.

“It’s incredible for a commanding officer to have the commitment, expertise and dedication for one’s job. That is the embodiment of Mike’s service. He literally creates a family atmosphere in his work place. I will miss the times sitting on his couch discussing all things, many not even Safety Department related. Michael will be missed by all but especially by me,” Wiley said.

After 18 years of dedicated service to the Naval War College (NWC) Monterey program at NPS, Joint Maritime Operations Professor Randall “Randy” Hess retires from NWC’s distance education program, Jan. 31.

Prior to his tenure at the NWC program, Hess served on staff at NPS as the Dean of Students and Director of Programs, where he was instrumental in the design, creation and stand-up of the NWC at NPS program.

“I loved working at NPS,” said Hess. “I recall it being fondly referred to as the Hundred Acre Wood. For most of us that work on this little but beautiful base, we feel privileged to work here. I appreciate my colleagues at the Naval War College and NPS and will miss them.”

Hess’ compliments were returned, as his students consistently rated him as an outstanding teacher who makes significant contributions to all aspects of the program. As he looks ahead, he hopes that he has left a lasting mark on those students, a mark that will benefit them as they continue on in service.

Prior to joining the NWC Monterey program, Hess served as a Navy officer for 28 years with assignments including squadron command, staff officer duties at Supreme Headquarters Allied Powers Europe, Command of the Naval Academy Preparatory School, and at NPS. As a naval aviator, he amassed thousands of flight hours in the E-2 Hawkeye, the C-130 Hercules, and the T-34 Mentor. Hess earned numerous awards for merit, and was recently recognized with a Department of the Navy Civilian Superior Service Award.

Have a story to share? Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to pao@nps.edu.
Strategist Peter Singer Offers a Glimpse Into the Future During Latest SGL

By Matthew Schehl

The Naval Postgraduate School (NPS) community took an electrifying journey back to the future Tuesday with one of the nation’s premier technology strategists at the helm.

Dr. Peter Singer, senior fellow with the New America Foundation, spoke with hundreds of NPS students, faculty, and staff about future challenges and opportunities in the future of military conflict in a packed King Auditorium for the latest Secretary of the Navy Guest Lecture (SGL) series, Jan. 15.

His presentation, entitled ‘NextWar: Tech Trends Shaping 21st Century Conflict’, Singer implored the audience to embrace the technological sea changes the U.S. military will face in the near term.

Singer outlined a series of changes that he argued are not evolutionary in nature, such as missiles or jets that go slightly faster, but are truly game-changing technologies on par with the steam engine in the 1820s, the airplane in the 1920s, or the computer in the 1980s.

What makes them “revolutionary” or “disruptive” is that they raise a host of fundamental questions that we simply don’t have the answers to, questions that were recently the fodder for science fiction, but now have to be posed by the nation’s government and military officers. These issues encompassed both what was possible, but also new issues of right and wrong.

Increasingly, everyday items are linked to the Internet which extends our interconnectivity beyond smartphones; an estimated nine billion objects are now part of the ‘Internet of Things’ - toasters, automobiles, power grids, Barbie dolls - and this number is expected to triple over the next five years.

“There are all sorts of things that come out of that, from massive amounts of efficiencies to change in marketplaces, but there’s one problem,” warned Singer.

“We are recreating every single one of the mistakes that we made with cybersecurity in the first wave of connected objects: there is zero regulation, basic liability hasn’t been figured out, the linked devices don’t have even the most basic security features, and customers are largely unaware of what they can and are supposed to do,” Singer continued.

Even more, each of these objects, every computer, every smartphone has become a sensor, and every Facebook post, every photograph, and every tweet has become a broadcaster, feeding information into the river of artificial intelligence-driven Big Data, from a hackable Barbie doll to the President of the United States.

“Unlike past technology revolutions, none of these technology areas are inherently governmental, military, or civilian,” he said. “They mix, match and cross whether you’re talking about who designs them, who buys them, or who uses them.”

Dr. Peter Singer, senior fellow with the New America Foundation, offers an outlook on future defense challenges and opportunities to a packed King Auditorium for the latest Secretary of the Navy Guest Lecture (SGL), Jan. 15. (U.S. Navy Photo by MC2 Patrick Dionne)

Advancing OPSEC Through ‘Train the Trainers’ Course

By MC2 Michael Ehrlich

NPS hosted the latest Naval Operations Security (OPSEC) Program Manager Course, Jan. 9-10, designed to teach OPSEC trainers across the Department of Defense enterprise how to develop programs to meet the needs of their commands.

NPS Senior U.S. Marine Corps Representative Col. Todd Lyons, lead for NPS’ internal OPSEC program, welcomed a cohort of military and civilian members from across the campus and beyond, noting that the course is designed to train the trainers who will then lead and develop OPSEC programs tailored to the challenges and requirements of their unique units and installations.

“When you go back to your commands, the intent is that you aren’t going to be the OPSEC police. The intent is that you are able to permeate OPSEC considerations into everything you do so it becomes as natural as breathing,” said Lyons.

Course instructor Cryptologic Technician First Class Cameron Ross, who presented different case examples during his teachings, had a specific hope for the trainers and their future programs.

“When they leave here they will have all the resources they need to create and manage an OPSEC program that can continue on after they move on to different assignments,” said Ross. “In time, we hope every command will have an OPSEC program that is maintained and updated with the changing times and personnel.”
Singapore, NPS Continue Longtime Academic Exchange Program

By MC2 Tom Tonthat

U.S. Marine Corps Capt. Kevin Wheeler is working toward a dual master’s degree in operations research and engineering at the Naval Postgraduate School (NPS). But unlike many of the overachievers who seek dual degrees at the university, Wheeler is one of a few students selected to take advantage of a rare opportunity to study abroad.

Wheeler, and a handful of his fellow U.S. and Singaporean students, recently returned from six months studying at the National University of Singapore (NUS) through a partnership between NPS and the Temasek Defence Systems Institute (TDSI) and its Master of Defence Technology and Systems (M D T S) program.

“I think the most interesting part of why I applied for the program was because of the opportunity to build relationships with the international community and its students,” said Wheeler.

The MDTS program has students attending classes on the NUS campus for six months, along with one academic year at NPS. Students earn degrees from both universities.

“The goal of the program is to give students the bird’s eye view of current defense technology issues both in Singapore and the United States accompanied by a specialization in their field of studies,” said Associate Professor and NPS-NUS program director Dr. Fotis Papoulias. “The program incorporates two institutions from across the globe with common goals and interests.”

Papoulias said that students participate in projects with faculty from both institutions, covering a range of subjects and topics. From the U.S. student perspective, the opportunity to hear about Singapore’s defense program was enlightening.

“The schoolwork and classwork that we did in Singapore was focused on defense systems,” said Wheeler. “A lot of the curriculum was based on classroom instruction, but we had a lot of guest lectures from industry, and on Singapore technologies.”

“The NUS TDSI program offered me the opportunity to learn from experts and practitioners on a wide span of defense-related subject matters,” said Kung Hao Tan, a Singaporean participant of the program now studying at NPS.

“Equally important was the opportunity to forge professional networks across communities and countries,” he added. “It’s a privilege to learn alongside international and American counterparts and to exchange ideas and glean insights ... And I think it’s also important on a person level to build friendships to bring back to Singapore.”

Leaders from both institutions say this is a key component to the program ... In addition to improving the education of its participants, the NPS-NUS program also helps solidify international relationships.

“We have this program in hopes that students from the defense community in Singapore can work hand in hand with counterparts in the U.S. and the friendship will go a long way, forging a collaboration between the two countries,” said TDSI Director Loon Ching Tan during a visit to NPS. “The U.S. and Singapore have long been strategic partners for many ages. Educating the defense communities in Singapore is a long-term goal. Given that NPS is one of the top schools in defense, we felt that we couldn’t do without such a collaboration.”

“We appreciate those who go above and beyond their commitments, as you have here at Naval Postgraduate School,” said Dr. Robert Tomlinson, NWC Monterey. “We thank you tremendously for putting out the great effort you did in class and for helping your other students become better because of what you put out there.”

U.S. Army Capt. Dale Aebischer credited the professionalism and expertise of the NWC professors in helping him graduate with distinction. He also said the peer learning aspect of the program was beneficial as it presented him a broader knowledge as well as the differing views of his classmates.

“Graduating with distinction is an honor for me personally because of the high-quality peers I went through the program with,” said Aebischer. “To be recognized out of that group is very special.”

Through the NPS-NWC partnership, a total of 5,172 officers have earned their Joint Professional Military Education (JPME) Phase I certification since the program’s inception in September 1999.

Send your campus news and notes to update@nps.edu.
A cohort of top graduates from the Naval Postgraduate School (NPS) Center for Homeland Defense and Security (CHDS) returned to their alma mater to participate in an innovative program to examine wicked problems across the homeland security space. Coined Advanced Thinking in Homeland Security, or HSx, the program is an 18-month effort designed to build knowledge and create new paradigms for some of the most complex homeland security challenges facing the nation and global community.

“The mission of CHDS is to develop a cadre of critical thinking leaders at the local, state, tribal and federal levels,” said CHDS Director of Strategic Communications Heather Issvoran. “When we started, it was very nebulous. Organizations didn’t really talk to each other and developing strategies and policies that addressed threats like terrorism was a very new thing. Over the past 16 years we have aimed to make homeland security more of a collaborative effort.

“What HSx does is take some of the best and brightest from our graduates to tackle the ‘wicked issues’ in their agencies,” she continued. “The goal was to be able to bring them together and look at national level projects in an innovative way and really think about complexity.”

Throughout the 18-month period, the cohort returned to NPS for six different in-residence periods held once a quarter, with the program separated into three parts. The first dealt with idea generation, determining what the problem areas to look at are, and what knowledge they should expose themselves too. The second focused on ways to tackle big problems, such as looking at how industries from separate organizations attack similar problems. Finally, the third section put the information and knowledge throughout the course together, and applied it to large scale problems in all sections of government and society.

It is one thing to have a master’s degree and to write a thesis, but it’s another thing to have your agency use it as a blueprint to solve their problems. This is taking it to the next level where we as a group try to tackle the most complex problems in realistic ways,” said Issvoran.

Focus On... Academic Assistance Programs

Writing coaches and thesis processors from the Graduate Writing Center and Thesis Processing Office, along with staff from the Dudley Knox Library, hosted an open house event for members of the Naval Postgraduate School (NPS) community, Jan. 17.

Staff from each department answered questions from students about the various resources and services they offer.

“We want to get our name out to the new students or just anyone who isn’t familiar with what we can help with,” said Rebecca Pieken, a thesis processor. “The Graduate Writing Center writing coaches are here to help students with academic papers as well as tips for introductions, research methods, or just anything with the paper writing process.

“Many students don’t utilize the Thesis Processing Office until they are writing their theses or in their last quarter before graduation,” she continued. “We aren’t looking at the content of the paper, but rather the style, formatting, citations, things like that. The thesis processors and writing coaches are great resources for anyone that needs them.”

Students can make appointments or walk-in during certain hours to take advantage of all of resources offered, from a quick question to getting help breaking through writer’s block.

For more information about these important student resources, visit the Dudley Knox Library, Graduate Writing Center, and the Thesis Processing Office.
Any Day at NPS...

NPS operations security (OPSEC) lead Marine Corps Col. Todd Lyons, center, introduces instructor Jay Rutter, kicking off the Naval Operations Security Program Manager Course in Ingersoll Hall, Jan. 9. (U.S. Navy photo by MC2 Michael Ehrlich)

Chair:

Vice-Chair:

SIGS School Lead:

SIGS Representative:

SIGS Representative:

SIGS Representative:

GSOIS School Lead:

GSOIS Representative:

GSEAS School Lead:

GSEAS Representative:

GSEAS Representative:

GSEAS Representative:

GSBPP School Lead:

GSBPP Representative:

Maj. Caitlyn Diffley, USAF

Lt. Gatti and I were privileged to attend an office call with President Rondeau, who gave her intent to raise NPS to a place among innovative and research institutions pushing the edge in graduate education. She recognizes the incredible work students and faculty are doing and highlighted the CNO’s focus on our work as well. She assured us that she is a champion for the students and she will be available but not oppressive. Our goals for student networking and building long-term mentorship connections through the Alumni Association garnered strong support.

The PSC is looking forward to accelerating the Committee programming started in January. Several students stepped into leadership roles to work on Communications, Professional Development/Mentorship/Networking, Student Concerns/Survey, and Community Involvement.

The Student Survey results will be posted on our PSC site, now linked on the Muster Page. We are building connections with the NSAM leadership including FFSC and CYP, the Spouses’ Club, and academic leadership to ensure student concerns are heard.

With President Rondeau’s support, the PSC is empowered to represent and advocate for students at NPS and to contribute to her charge to increase institutional leadership across the innovation and research fields. Please join us at our monthly PSC meetings, the first Wednesday of each month at 1200 in the library. This month, we look forward to hosting our MFLC and International Students representatives.

With Warm Regards,

Caitlin B. Diffley
Major, USAF

Chair: Maj. Caitlyn Diffley, USAF
Vice-Chair: Lt. Christina Gatti, USN
SIGS School Lead: Maj. Peter Cox, USA
SIGS Representative: Lt. jg. Tim Cole, USN
SIGS Representative: Maj. Pete Larsen, USAF
GSOIS School Lead: Master Sgt. Alex Eudy, USAF
GSOIS Representative: Lt. Cmdr. S. Shivashankar, USN
GSEAS School Lead: Lt. Josh Malia, USN
GSEAS Representative: Lt. Cmdr. Pete Harley, USN
GSEAS Representative: Lt. jg. Aaron Demers, USN
GSEAS Representative: Lt. Adam Waymouth, USN
GSBPP School Lead: Capt. Tyler Flansburg, USAF
GSBPP Representative: 1st Lt Helene Caniac, USAF

Contract Specialist Jennifer Lee, center, receives the Meritorious Civilian Service Award from NPS President retired Vice Adm. Ronald A. Route and Director of Contracting & Logistics Management Patricia Hirsch in Herrmann Hall, Jan. 16. Lee received the award in recognition and appreciation for her many years of work in which she showed the highest standards of professionalism and quality of work to NPS and the Navy. (U.S. Navy photo by MC2 Michael Ehrlich)

Naval War College (NWC) Monterey Professor Randall “Randy” Hess, left, offers one of his final lectures on Joint Maritime Operations to a full class in Halligan Hall before his retirement after 18 years. (U.S. Navy photo by Javier Chagoya)

Participants of the Center for Executive Education’s January Navy Senior Leader Seminar pose for a photo outside the Dudley Knox Library, Jan. 11. (U.S. Navy photo by MC2 Tom Tonthat)

NPS operations security (OPSEC) lead Marine Corps Col. Todd Lyons, center, introduces instructor Jay Rutter, kicking off the Naval Operations Security Program Manager Course in Ingersoll Hall, Jan. 9. (U.S. Navy photo by MC2 Michael Ehrlich)

The delegation for border security in Vietnam poses for a photo by the flag garden, Jan. 9. (U.S. Navy photo by Javier Chagoya)

Naval War College (NWC) Monterey Professor Randall “Randy” Hess, left, offers one of his final lectures on Joint Maritime Operations to a full class in Halligan Hall before his retirement after 18 years. (U.S. Navy photo by Javier Chagoya)

Students taking the Defense Resources Management Institute’s January Risk Management course pose for a group photo outside Spruance Square. (U.S. Navy photo by MC2 Nathan K. Serpico)

Any Day at NPS...
On Campus this Month

February 4-8
JIFX 19-2
Location: Camp Roberts

February 8
Defense Energy Seminar lecture

February 12
TLC Open Forum
“Innovative Tools for the Classroom: GoodNotes, Notability, Jupyter, Notebook”
1200, Reed Hall 101

February 17
Reporting Date (International)
International Students are to report back on Sunday, February 17, 2019

February 18
Presidents’ Day

February 22
Defense Energy Seminar lecture
“Ludington Pumped Storage”
1300, DRMI Auditorium

Historical Highlights

The La Novia Room was originally called the Copper Cup Room and was renamed La Novia some time after 1940, when the diorama by Jo Mora (1876-1947) was unveiled.

La Novia is a half-lifesized sculpture of a Californio groom departing with his bride from their wedding ceremony (“La Novia” means “The Bride”). The figures were first molded in clay, then cast in artificial stone and painted. Much of the work was done in the Copper Cup Room, and the completed diorama was cantilevered into a hole cut through the wall.

Mora wrote that, “The trappings and costumes are of the Spanish period of California history. Most of the guests arrived at a wedding ceremony on horseback, and the bride and groom left for their new home mounted as shown in this group. The other two figures are friends, riding away from the wedding feast with them to see them on their way.” The walnut case also includes the escutcheon of the Count of Monterey, for whom the Spanish explorer Vizcaino claimed this area and named the bay in 1602.

Historical Highlights are provided by the Dudley Knox Library.