

USSOCOM Commander explores NPS with emphasis on innovation and industry partnerships

By MC2 Nathan K. Serpico

During a trip with multiple visits including Stanford University and Joint Base Lewis-McChord, U.S. Army Gen. Richard D. Clarke, Commander, U.S. Special Operations Command (USSOCOM), paid a visit to the Naval Postgraduate School, Jan. 23, to explore relevant research, and like his other stops, engage with leadership and students to get a first-hand look at how NPS is fostering innovation.

Clarke wanted to gain a better understanding of not just how NPS research is addressing critical challenges, but how NPS is specifically preparing professionals in special operations forces (SOF) to innovate in the modern environment. The visit also provided Clarke the chance to participate in NPS' Secretary of the Navy Guest Lecture series and personally interact with students. Clarke spoke about the history and mission of SOCOM and how partnering with academia and industry will help to give America the edge in the great power competition and future conflicts.

There will be times in your career where you will have to make decisions, and at the time you may not realize how consequential they will be. Follow that gut instinct, and know that experience comes over time. Don't be afraid to use other people and ask for their input because that is absolutely critical." -Commander, U.S. Special Operations Command (USSOCOM) U.S. Army Gen. Richard D. Clarke

"My guidance and priorities from the Secretary of Defense, and from the national defense strategy are clear," said Clarke during his address to NPS. "One of those priorities is to build a more lethal force, and I am trying to do that with technology. I absolutely believe in education, and we have to work with academia and technology companies to get the best and brightest minds to help the defense industry."

Core to the university's mission, NPS has recently worked to expand and develop new education and research partnerships with the private sector, government sector and academia to foster defense-relevant research and capabilities. Clarke linked academia and industry as a combined key enabler that can inform and shape how the force thinks about the future.

While at NPS, Clarke received presentations on current and upcoming curricula specifically tailored for SOF professionals, and received student thesis briefs on current research directly applicable to their challenges.

According to U.S. Army Col. John Crisafulli, NPS' Chair for Special Operations, the visit allowed for a two-fold understanding between Clarke and NPS.

"This visit enabled [Clarke] to see the entire realm of NPS and what it has to offer the SOF community," said Crisafulli. "We [at NPS] produce in SOF professionals what SOCOM has directed them to have. This visit allowed him to understand our curricula which helps SOF professionals understand innovation in the modern environment, and it helped us elicit guidance from him. If SOCOM needs more specific classes to focus on emerging needs, then we, unlike other institutions, have the flexibility to make those changes."

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NAVAL POSTGRADUATE SCHOOL

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Black History Month

February 2020

From talent management to personalized terrorism, SOF student theses explore diverse topics

By Rebecca Hoag

The Naval Postgraduate School Department of Defense Analysis (DA) held its biannual Research Week, Jan. 13-17, on the university campus. Home to a majority of the school's Special Operations Forces (SOF) students, the DA department organized the event to showcase the unique, far-reaching research efforts underway by its students. In addition, Research Week brought representatives from the broader SOF community to campus for an opportunity to leverage the brain power of the students.

The DA student population filed into a lecture hall for a presentation from representatives of the U.S. Army Special Operations Command (USASOC) during the second day. While the USASOC representatives

provided a brief overview of their research priorities, the engagement also functioned as an informal "speed dating" of sorts. USASOC's goal, like the 12 other commands represented, was to get NPS students like U.S. Army Maj. Chad Tobin interested in dedicating their theses to research holes the organization wanted filled.

Tobin is on his third quarter at NPS, and has much of his program's difficult coursework behind him. He's now preparing to dedicate time to his thesis and the proposal he must get signed off by the end of the quarter. His topic of choice talent manage



Army Maj. Philip Riglick explains his thesis to representatives from the U.S. Army Special Operations Command, who came to NPS to listen to the latest in defense analysis research and potentially select or provide research proposals as they seek solutions to specific problems from the field. (U.S. Navy photo by Javier Chagoya)

Research sponsorships have traditionally come from within the DOD, but recently, NPS has reached out to private industry. In a first for Research Week, a machine-learning company based in San Francisco, Primer, joined this event. Primer recently established a limitedpurpose Cooperative Research and Development Agreement (LP-CRADA) with NPS "to conduct research in mutual areas of interest," according to Wade.

One of Primer's representatives, Director of Primer's National

topic of choice — talent management.

"I see a large amount of very qualified officers departing the regiment, and I'd like to pursue what the regiment could do differently," Tobin explained. He was pecifically interested in different reward systems that could entice personnel to stay. Like many of the sponsors, USASOC has shown interest in finding ways to keep their best and brightest on active duty. Maintaining a high retention rate makes more economic and organizational sense than constantly training new SOF professionals.

While several students like Tobin searched for a thesis topic, DA's Research Week also provided an avenue for recent graduates, like Army Maj. James Maicke, with a chance to present their research to attending organizations. His thesis, entitled "Tailor-Made Terrorism," conceptualized personalized terrorism through historical examples, which he categorized into four classifications based on whether the terrorist chose the right or wrong target and conducted the right or wrong action. His conclusion offered a possible glimpse into the mind of a personalized terrorist ... how they "select the right personalized

Security Group Brian Raymond, said the partnership gave Primer a chance to "explore some areas that don't fit neatly on the commercial side or the government side.

tactics to get a large emotional response either out of a population or

Like most student theses, Maicke's work will be published by NPS,

but two of the sponsoring agency's in attendance, the Joint Special

Operations University (JSOU) and Joint Special Operations Command

(JSOC) Center for Counterterrorism Studies, have asked him to

consider writing a piece on his thesis for them. Maicke, however, is now primarily focused on transitioning from graduate academics back

to the business of planning, managing and leading special operations. He's moving his family to Kentucky, for his next assignment at the

from an individual that has influential power."

US Army 5th Special Forces Group.

"What we're really hoping to get is an opportunity to explore with this partnership, and partnership with the students, some of the issues that are relevant to all of us," Raymond says.

Primer and NPS' partnership exemplified one of university President retired Vice Adm. Ann E. Rondeau's initiatives – to engage more with the private sector.

"It's important to be connected with private industry because a lot of what we're dealing with are emerging technologies, things that private industry is producing, so there needs to be a bridge between them and the DOD," Wade explained. "The research is not just on what those technologies are or who's developing them, but it's also on how we adapt organizations and doctrine, and everything else that goes into innovating and dealing with emerging technologies."

"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.

Gray Networks: NPS uses social network analysis to shed light on maritime awareness

By Matthew Schehl

In November 2018, Norwegian naval officer Cmdr. Stian Schnelle submitted his graduate thesis to the Norwegian Staff College which — with uncanny synchronicity — identified vessels similar to the commercial cargo ship that had just suddenly parked itself across the Kerch Strait, blocking Ukrainian naval vessels and prompting international outrage.

Schnelle had just completed work at the Naval Postgraduate School (NPS), where he applied a new method developed by the university's Common Operational Research Environment (CORE) lab to identify "gray" maritime networks - commercial vessels sailing under ulterior motives - to the security concerns of his native country.

Schnelle's thesis received the Staff College's highest marks, but it also garnered immediate attention in the Norwegian Armed Forces: commercial vessels under different flags, such as the one which blocked the Kerch Strait, had taken to regularly "loitering" outside military areas and events before continuing on their merry way.

NPS' concept was picked up by the Norwegian Defense Research Establishment (Forsvarets forskningsinstitutt, FFI), which entered it in May, 2019, for the innovation challenge at NITECH19, the NATO Communications and Information Agency's fourth annual industry conference geared towards accelerating transformational technology solutions to NATO's most pressing issues.

The joint NPS/FFI project - "Dual-use of AIS-data: Combining Historical and Live AIS Track with Social Network Analysis for Increased Maritime Network Awareness" was awarded the most innovative technology, and NPS and FFI worked together to develop a formal pilot which could be fielded throughout NATO as an app to easily identify these networks.

"I was told there were 50 or 60 different entries from 11 different countries, and we won the whole thing," said Frank Brundtland Steder, a principal scientist at FFI who exhibited the project. "Of course, being as diplomatic as possible, I had on my NPS tie, an FFI tie pin and Norwegian Navy cufflinks."

"I couldn't let slip the opportunity to highlight the good cooperation between us!" he added. This cooperation reflects decades of dedicated partnership building between the Norwegian military and NPS. Steder himself was an NPS student in 2002 and the second foreign student to attend the university's Defense Analysis (DA) department; the first was also a Norwegian naval officer. Since August 2014, FFI has consistently had a guest research scholar presence at NPS as well.

In the years since, Steder and his compatriots have continued to strengthen this relationship, particularly through FFI, which CORE's executive director Dr. Wayne Porter described as the "Norwegian Rand Corporation." Based on conversations with Porter about work CORE was doing, Steder had himself originally encouraged Schnelle to go to NPS when he expressed interest in exploring hybrid warfare at sea.

Established at NPS in 2007, CORE has a long history of applying social network analysis (SNA) to complex problems the military faces in the field, from networks of insurgents and psychological operations to narcotics trafficking and money laundering.

Under Porter's guidance, CORE pioneered fusing SNA with Automatic Identification System (AIS) data, the global tracking information ships use to avoid collisions at sea. The result: they were able to systematically identify how, when, why and where the gray maritime networks operate.

"Ships are big pieces of metal in the water intermittently broadcasting through AIS," Porter explained. "If we can track where they are or what they're doing as an indicator of something we'd be interested in, we can use that to point to who the owner-operator is, what cargoes they're carrying, what ports they're frequenting, what other activities they're conducting, and suddenly we've just mapped an entire network, the gray maritime network that they belong to."

In a new era of Great Power Competition, forging new means like mapping gray maritime networks to effectively counter fluid threats and adversaries has become increasingly imperative. For Porter, the project's success represents what NPS does best: directly advancing the warfighting capabilities of the United States and its allies and partners.

FACULTY news & notes

It's time for a new discussion about the birds and the bees ... Or rather, fleets of hundreds of armed unmanned aerial vehicles (UAVs) and the dynamics of these massive swarms under external control – coined xSwarms.

The Naval Postgraduate School (NPS) is calling for participants for its inaugural xSwarm workshop, being held March 25-26 in Monterey to take on this rapidly emerging issue. Sponsored by NPS' Consortium for Robotics and Unmanned Systems Education and Research (CRUSER), the event intends to bring together researchers from across diverse fields to provoke conversation about interdisciplinary research and the development of new tools for understanding xSwarms.

"What we're really interested in is how you deal with high numbers of agents when you don't actually know about the swarm itself; hence, the 'X,'' said Claire Walton, research assistant professor in NPS' Mechanical and Aeronautical Engineering department and one of the workshop's organizers. "Whether on the fly or through observations beforehand, you're trying to figure out as much about it as you possibly can and how you might counteract it, given the whole range of possible capabilities."

Panelists will present research, followed by dialogue exploring aspects of xSwarms and how these intersect in order to lay out future possibilities of what can be done in this uncharted territory.

Registration is open via the xSwarm Workshop website (https://my.nps. edu/web/cruser/xswarm). Abstract submissions are due February 21.

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

Crew Endurance Team explores innovative sleep solutions onboard USS Paul Hamilton

By NPS Crew Endurance Team and Rebecca Hoag

The Naval Postgraduate School (NPS) Crew Endurance team, whose research has already led to fleet-wide changes in watchbill rotations to provide more sleep to Sailors, has now focused their studies on the quality of that sleep. The team recently embarked onboard the guided-missile destroyer USS Paul Hamilton (DDG 60) to study innovative changes to Sailor work centers and berthing compartments, rack curtains, replacing the standard-issue curtains that are currently used on almost all Navy surface combatants. These new curtains, in addition to being made from thicker and heavier governmentapproved fabric, can be laundered and have interior pockets that provide convenient storage for the crewmember. The pockets also

and their potential impact on crew health and performance.

Led by Dr. Nita Shattuck, the Crew Endurance Team has long touted the importance of sleep ... they've monitored the sleep schedules of Sailors for over a decade, demonstrating how optimized schedules improve the health, performance and readiness of the Navy warfighter.

Now, the team is working to develop enhanced rack curtains for berthing compartments that reduce light, minimize temperature fluctuations, increase privacy and reduce noise levels, all with the goal of improving sleep quality.

U.S. Navy ships since 2002," said Shattuck.

"We have developed some great relationships with several ship commands who have encouraged us to try out our ideas on their crews. Getting underway with the ships and experiencing the same challenges that the Sailors face gives us the credibility needed to do underway studies that can lead to positive change for Sailors and increase their effectiveness."

While underway, the team installed 300 pairs of the newly designed



The Naval Postgraduate School's Crew Endurance Team (consisting of Nita Shattuck, Ph.D.; Lt. Cmdr. Brennan Cox, Ph.D.; Heather Clifton, Ph.D.; Panagiotis Matsangas, Ph.D; Adam Burkley; Michelle L. Hancock; Anna Donnla O'Hagan Ph.D.; and Megan Rock) gather feedback from Sailor participants aboard the guided-missile destroyer USS Paul Hamilton (DDG 60) about their experience with the old rack curtains versus new

contain magnets to reduce movement at the bottom of the curtain, ensuring additional privacy and further

reducing light from outside the rack.

In order to measure the effects of the intervention, 50 crewmembers of varying rank and specialization, and in differing berthing arrangements across various ship locations, volunteered to participate and wear "sleep watches" for the three-week study period. The NPS team will compare the quality of sleep received by Sailors while using the old and new curtains.

"It is amazing to see how much progress the Navy has made toward improving crew endurance," says Shattuck. "The surface force continues to be forward-leaning, permitting us to try out schedules and new "We have been studying crews on underway ones developed by the Crew Endurance Team. (Courtesy photo) methods that may help optimize Sailor effectiveness, increase alertness and reduce

> fatigue levels. These new curtains bring us one step closer to meeting the goal of well-rested Sailors performing at their optimal levels."

> Shattuck anticipates the results of the team's latest study to be ready later this year. Meanwhile, the Crew Endurance Team continues to look at other tactics and innovative solutions to optimizing crewmember rest so Sailors are better able to respond to the challenges posed by an increasingly complex world.

Two NPS Grads Among NASA's Newest Astronauts

By Matthew Schehl

Two Naval Postgraduate School (NPS) alumni graduated astronaut basic training with the first cohort for NASA's Artemis program, poised to open a new chapter of American space exploration.

Marine Corps Maj. Jasmin Moghbeli and Navy Lt. Cmdr. Matthew Dominick received their astronaut pins at a ceremony at the Johnson Space Center in Houston, Jan. 10. Along with the nine other candidates which make up NASA's 22nd astronaut

class, the new graduates are now spaceflight ready for transit to the International Space Station, the moon and — ultimately — Mars.

"These individuals represent the best of America, and what an incredible time for them to join our astronaut corps," said NASA Administrator Jim Bridenstine at the graduation ceremony. "2020 will mark the return of launching American astronauts on American rockets from American soil, and will be an important year of progress for our

Artemis program and missions to the moon and beyond."

The avowed aim of the Artemis program is to return humanity, and the first woman in human history, to the surface of the moon by 2024. The astronauts' steps will mark the first in 50 years, since another NPS graduate, Gene Cernan, last set foot on the lunar surface.

The graduation of Class 22 expands NASA's current total of mission-ready astronauts to 48.



Navy Lt. Cmdr. Matthew Dominick



Marine Corps Maj. Jasmin Moghbeli

NPS partners with RoboNation, Open Robotics to host the first global, nauticalthemed Virtual Robotics competition

By MC2 Tom Tonthat

Since its official launch in 2014, the biennial international RobotX challenge, a collaboration between the Office of Naval Research (ONR) and private and non-profit partners from the robotics industry, has become a premier robotics competition within academia focusing on solving challenges associated with autonomous technologies. Now that the Naval Postgraduate School is in the mix - partnering with organizations such as RoboNation, Open Robotics and Future Systems & Technology Directorate - it has teamed up to facilitate and host the first-ever Virtual RobotX (VRX) competition, an international, university-level challenge designed to broaden students' exposure to autonomy and maritime robotic technologies.

The VRX, held in Singapore on Nov. 22 2019, provided student teams from around the globe a simulated environment to test and evaluate programs designed to control Unmanned Surface Vehicles (USV). NPS researchers from the Consortium for Robotics and Unmanned Systems for Education and Research (CRUSER) program designed and built the real-time simulated environment to both challenge the students, as well as help them further develop their programs' autonomy as the teams prepare for the realworld RobotX challenge later this year.

"The simulated environment we created for VRX runs in real time where teams can develop and evaluate their solutions and test them anywhere in the world," said CRUSER Director Dr. Brian Bingham. "It includes environmental effects like wind, waves, and lighting effects. The hypothesis is that having that tool will benefit all of these teams so that in 2020 when they have their next physical competition, we'll see the level of solutions rise because these teams will have the ability to develop, test, and adapt at a more rapid and agile pace."

In total, 17 university-level teams from the United States, Korea, Japan, China, Australia and more performed 828 simulations across 69 hours performing prescribed USV tasks such as wayfinding, navigating, and docking. The team from Korea Advanced Institute of Science and Technology (KAIST) took first place overall, and teams from Georgia Institute of Technology, the University of Sydney, National University of Singapore, and the University of Florida took second to fifth place, respectively.

As teams demonstrated their ability to complete virtual nautical challenges, the VRX experience provided necessary insights before deploying actual USVs in a real-world environment.

"What we're seeing for robotics in general is that a simulation is never a replacement for field experiments," said Bingham. "But looking at what's going on with self-driving cars and other innovative programs, simulation becomes a critical part of developing that type of autonomy. With RobotX, we're trying to increase the overall performance of all the teams by giving them a simulation engine that they can test and evaluate to develop their software before they go into the water."

In addition to sharing innovations in robotics and virtual environmental technology, working on VRX complemented NPS' international relations with allies and student exchange programs.

"[VRX] was a great way to understand where robotic technology is going, and to understand what the applications for the technology are outside the U.S.," said Bingham. "It also built relationships, especially with Singapore's Ministry of Defense, the Temasek Defense Systems Institute (TDSI) program as well as both the National University of Singapore and Nanyang Technological University. These relationships play a key role in developing new autonomous capabilities with direct naval applications."



Members of the Korea Advanced Institute of Science and Technology (KAIST) robotics receive their award for achieving first place in the 2019 Virtual RobotX (VRX) Competition during the RobotX Interactive Forum held in Singapore, Dec. 6. VRX enabled teams to evaluate autonomous programs for unmanned service vehicles (USVs) in a simulated environment to develop their USVs for a real-world competition to be held later in 2020. (Photo by RoboNation, Inc.)

CAMPUS news & notes

Greta Marlatt is a member of Dudley Knox Library and is known to be a hardworking and serviceoriented individual. Greta is the NPS Library's Outreach & Academic Support Manager and the Homeland Security Digital Library Content Manager.

For more than 20 years, Greta has been compiling a weekly list of Congressional Research Service Reports along with other news bulletins and reports related to international area studies. She sends out a weekly email attaching the list. What started as a service for the NPS faculty in the SIGS department, has now expanded to a broader group of more than 1,500 residents (including at various points in time: Flag Officers and Ambassadors) with a shifting regional focus.

Greta goes above and beyond to help students and faculty to accomplish their research needs. In one specific example, Greta assisted Jeff Kline, Professor of Practice for Military Operations Research, obtain specific declassified correspondence from the National Archives on war planning from the 1920s and 1930s. Greta volunteered her services and visited the National Archives to photocopy the material herself during a scheduled trip to Washington D.C. at great savings in cost and time to NPS and Prof. Kline.



Send your campus news and notes to update@nps.edu.

NPS students research impact of stress on learning, performance

By MC2 Nathan K. Serpico

NPS Department of Operation Research students Lts. Lindsay Clements and Clarese Neill are performing a series of experiments looking into the effects of stress training on learning retention.

Clements and Neill had 50 participants use a ship driving simulator to pilot a ship, with no prior experience, while subjecting their body to an external stressor, like placing their bare foot in a bucket of ice water.

"Research shows that any type of stress, whether it's a physical stressor or a mental stressor, produces all the same signs in your body," stated Clements. "Essentially, if someone's standing there yelling at you that you need to turn the ship this way or that way, or if you're in a collision situation, the same things are happening in your body as if you're sitting in here putting your foot in a bucket of ice water."

Participants were placed in three different groups with each group receiving varying degrees of stress training prior to their first run on the simulator. The first group of control subjects received no stress training during their initial course run, and no stressor was applied. The second group used a cold-water perfusion system on their bare lower back during their first run to receive a low-level stressor, while the third group was exposed to having their foot in the ice placing his bare foot in ice water for a stress inoculation study. water during the entire initial run.

The two variable groups also viewed a stress training video before completing the initial task that instructed them to control their breathing and focus on the performance measures of the ship driving task they were about to perform.

Participants had several vitals monitored during each run, to include blood pressure, heart rate and even electro-dermal activity, meaning the sweat that formed on their hands. Along with their vitals, a saliva

sample was taken so that physiologist Dr. Heather Clifton could measure their cortisol levels.

"We don't expect the Navy to start dunking Sailor's feet in water during training," said Neill. "However, a cold compress on the small of the back is another method that is much more applicable to the Navy and could easily be implemented.

"If we can help to prove the idea of stress training, then someone can do follow-on work and we can just hope to improve the quality of our ship drivers," continued Clements.

Clements and Neill cited the two collision incidents of 2017 as a backdrop for their research. Training since has improved, with Sailors learning what to do in emergencies over and over again. But what about training while actually under stress?

"We're taking this very basic concept of inducing stress while training so that if a situation like this happens again, those Sailors can be ready," Clements said.

The two-student team has completed the data collection portion of the experiment,

now they must analyze the data to find if there is a correlation between the type and amount of stress training received and the performance under stress.

Focus On... Dr. Martin Luther King, Jr.

Students, faculty and staff from NPS participated in a ceremonial march around the flag pole in front of Herrmann Hall in remembrance of Dr. Martin Luther King Jr., Jan. 17. Following the march, participants gathered to listen to guest speakers and a reading of King's famous "I Have a Dream" speech to honor his impact on furthering civil rights.

"Dr. Martin Luther King Jr. speaks about equal rights not just for people of color, but for all people and to be a positive voice to everyone in a nonviolent manner," said Sheridan Stevens, chairperson of the NPS Heritage Committee. "He encouraged his followers to participate in peaceful protests when the situation became heated by others, remain steadfast in their principals, and to have courage and faith.

(Courtesy Photo)

Education was a point of emphasis that King often mentioned in his speeches. Stevens pointed out that King's famous speech is still very much alive within NPS.

"NPS allows for the dreaming of

new theories from its students and professors, which keeps alive Dr. King's dream by bettering ourselves through education,' she continued.

After reciting King's famous "I Have a Dream" speech, U.S. Navy Capt. Philip Old, NPS Chief of Staff, delivered some remarks.

"When you look at Dr. Martin Luther King Jr., he was the equivalent of a great general in a hundreds of years long campaign for civil rights that started back even before the American



revolutionary timeframe with slavery," said Old.

Old concluded with a call to action for everyone to continue King's work toward equality stating that "it's up to all of us to continue his work, and eventually we will fulfill his legacy."



Any Day at NPS



Lt. Aaron Demers, left, receives the Navy and Marine Corps Medal for heroism, Jan. 16. On July 1, 2017, while serving on USS Momsen (DDG 92) in Everett, Wa., Demers responded to a small civilian craft that was sinking due to a collision with a pier on Naval Station Everett. Upon discovering the sinking vessel, he notified others, donned his Rescue Swimmer gear, swam to, and placed his own life preserver on one of he people involved in the incident. (U.S. Navy photo by Javier Chagoya)



NPS Foundation members get a taste of student research during a members and alumni event in Herrmann Hall's Quarterdeck, Jan. 27. Some of the distinguished alumni present were retired Adm. Mike Mullen and retired Vice Adm. Jan Tighe. (U.S. Navy photo by Javier Chagoya)



NPS Chief of Staff Capt. Philip Old, right, presents Aviation Electronics Technician 3rd Class Elizabeth Orsburn with the FY-19 Blue Jacket of the Year during an awards ceremony held in Herrmann Hall, Jan. 17. (U.S. Navy photo by Javier Chagoya)



NPS Chief of Staff Capt. Philip Old, right, presents Yeoman 2nd Class Mario Ruiz with the FY-19 Junior Sailor of the Year during an awards ceremony held in Herrmann Hall, Jan. 17. (U.S. Navy photo by Javier Chagoya)



NPS Undersea Warfare Program Officer Cmdr. Paula Travis, left, receives her certificate of retirement from Vice Adm. Brian Brown, Commander, Naval Information Forces, during her retirement ceremony held in the Barbara McNitt Ballroom, Jan. 17. (U.S. Navy photo by Javier Chagoya)



NPS Associate Professor, Mechanical and Aerospace Engineering Department, Dr. Anthony Gannon, left, talks about advances in turbine wheel designs developed at NPS to Paul Dabbar, Under Secretary for Science, Department of Energy, during his visit to NPS, Jan. 30. Dabbar visited the campus to learn more about the university's contributions to energy research. (U.S. Navy photo by MC2 Tom Tonthat)

STUDENT voice

Lt. j.g. Brian Pajarillo, USN

NPS Colleagues,

The President's Board for Student Affairs (PBSA) started the new year with the direction of "Making student life easier." This initiative aims to bring awareness to any issue students may come across during their time at NPS. To help make it easier for students to address their specific problems, the PBSA has started a monthly Town Hall.

This forum is an informal meeting set from 1200-1230 on the first Thursday of each month at the lunch tables outside the Dudley Knox Library. Any questions, comments, or concerns about the daily life of an NPS student will be addressed and communicated with the appropriate staff.

Every student should have the tools at their disposal in order to succeed. PBSA aims to be the bridge between the students and the staff to provide any tool that might benefit the students.

Other major projects that the PBSA have been working on include the quarterly student survey to gain insight on various topics and an online book exchange where students can buy and sell the textbooks they no longer need. PBSA will continue its mission of "Making student life easier."

With Warm Regards,

Brian Parajillo

Don't hesitate to contact us at PBSA@nps.edu

Chair: Vice-Chair: Lt. j.g. Brian Pajarillo, USN Lt. j.g. Jude Apkpunku, USN

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

On campus this month

February 4-6 SOCPAC Symposium





February 18 Natural Gas: The Next 10 Years

12:00 p.m., ME Auditorium

February 17

Presidents' Day

February 13

Inferring Mixing from Echosounder Observations 12:00 p.m., Spanagel Hall



February 19-March 6

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Historical Highlights

In the 1930s, the Hotel Del Monte provided popular "name" orchestras for nightly dancing. Freddy Nagel was one such bandleader, a saxophonist and vocalist who brought his live orchestra to the Hotel from 1935 to 1941. The Nagel Orchestra's repertoire, branded as "Sophisticated Swing" was geared for high society parties and plush ballrooms like the one at Del Monte and their performances were broadcast nationwide by Mutual Radio Network.



Hotel publicist Herb Cerwin recalled one New Year's Eve at the hotel, following the attack on Pearl Harbor. Nagel's Orchestra was there, performing in the "Bali Room" (today's El Prado dining room). That night, instead of their usual closing theme song, the orchestra

played the national anthem. "Everyone sang loudly and proudly; our country had been badly hurt but there was no one in the room who doubted the outcome. We were united as a nation and as a people as never before."

PHOTO CAPTION: Freddy Nagel and Orchestra with vocalist Grayce Joyce, relaxing on the roof of the Hotel Del Monte

Historical Highlights are provided by the Dudley Knox Library.