

Alumnus Shares a Powerful Story of Transformation With Summer Grads

By MC2 Nathan K. Serpico

The Naval Postgraduate School (NPS) bid farewell to 320 graduates, including 29 international students from 11 nations, earning 323 advanced degrees during the 2018 Summer Quarter Graduation ceremony in King Auditorium, September 21.

University president retired Vice Adm. Ronald A. Route opened the ceremony with a message to the quarter's graduating class, recognizing the significance of their commitments and accomplishments. He then turned the podium over to commencement speaker Vice Adm. P. Gardner Howe III, currently serving as Associate Director for Military Affairs at the Central Intelligence Agency.

"NPS is special because of what happens here," opened Howe. "It was an intellectual awakening, and a transformational experience, for my personal and professional development."

I developed a thirst for constant learning that continues to this day." -Vice Adm. P. Gardner Howe III

Howe graduated from NPS in 1995, earning a Master of Arts in National Security Affairs. He had already earned his trident by completing BUD/S training and initial SEAL qualifications training, in addition to five arduous deployments behind him.

"My experience at the Naval Postgraduate School gave me an intellectual foundation that has served me incredibly well in the years since then," he declared.

"I'd offer that the best way to [ensure] you don't take that gift for granted is to consciously acknowledge the responsibility you've just inherited as a result," Howe continued. "The responsibility to critically and thoughtfully employ this education as you move forward.

"As you depart today, I ask you to keep in mind the profession you serve, this profession of arms," he continued. "Never forget the trust that the nation has placed in you, your obligation to uphold that trust, and the professional ethic that guides your actions every day as you continue to grow as a steward, a true steward, of our profession."

- p2 Workshop Updates NPS Data Scientists on Current Research
- p3 **FDNY Deputy Chief Speaks at 9/11 Remembrance Ceremony**
- p4 JIFX Helps DOD, Academia Explore Limits of New Technology
- p6 Seminar Helps Senior Officials Fine-Tune Leadership Skills



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October 2018

Workshop Updates NPS Data Scientists on Current Research

be a daunting challenge.

to U.S. national security.

By Matthew Schehl

Doctoral students from prestigious universities across the nation recently convened at the Naval Postgraduate School (NPS) to share their latest research in data science and analytics.

The second annual "Day of Data, Decisions and Defense" workshop hosted by NPS' Operations Research (OR) department, Aug. 27, provided a forum for students from NPS, Stanford University, University of California at Berkeley and the University of Wisconsin at Madison to present and discuss a range of current topics in this pivotal field.

"The impetus is always meeting young, talented doctoral students working on challenging problems in defense and homeland security

operations research," said OR professor Javier Salmerón, who organized the event.

"It gives these students an opportunity to meet faculty working on related problems, and it gives us a perspective on current research being carried out by doctoral students in other departments that focus on operations research," he added.

The intense, day-long workshop covered a lot of ground, but was thematically organized along four topical areas: probabilistic risk analysis, optimization, statistics, and Markov models.



Mark Velednitsky, a fourth-year Ph.D. student at the University of California Berkeley, was one of several presenters at the second annual Day of Data, Decisions and Defense, Aug. 27. The workshop provided NPS students and faculty with a detailed look at current research in the field of data science. (U.S. Navy photo by Javier Chagoya)

The presentations ranged from space surveillance sensors for collision management to statistical models that predict human performance, and sophisticated algorithms to solve complex, nonlinear optimization problems, to name a few.

"This type of workshop serves as an example of NPS' interest in cutting-edge research and offers other researchers from top universities the opportunity to see NPS and interact with our faculty, creating links for future collaboration," Salmerón said. "Fostering these relationships with faculty and students at other institutions is beneficial to NPS and the Department of Defense."

"Through the DSAG, NPS will establish itself as the thought leader, educational nexus, and primary research coordinator for data science and analytics in the DOD," Dr. Robert Dell, the OR professor tasked with leading DSAG, said at the time.

The pervasive growth of information technology over the past

two decades has radically transformed virtually every aspect of

military affairs. When nearly everything is digitalized, effectively managing and interpreting massive amounts of data has proven to

Few organizations in the world collect more data than the DOD.

Across disparate domains - intelligence, oceanography, personnel,

logistics, cybersecurity, meteorology, acquisition, command and

"There is an incredible demand for DSAG research and education," he added. "In many ways, [DSAG] is a response to the overwhelming number of calls we get from government agencies looking for help."

With events like Salmerón's Day of Data, Decisions and Defense, the university looks to expand its resident expertise in the burgeoning field by staying on top of the latest research in peer OR departments across the nation.

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control - successfully navigating this data remains a critical challenge NPS students and faculty have been making significant contributions to this field for years. In 2013, the OR department, in NPS' Graduate School of Operational and Information Sciences (GSOIS),

began offering a specialization track focused on data science and, since 2016, has added a graduate certificate in the discipline.

This summer, NPS formed the interdisciplinary Data Science and Analytics Group (DSAG) to streamline the way data science is developed, taught and shared across the university and beyond.

FDNY Deputy Chief Speaks at 9/11 Remembrance Ceremony

By MC2 Michael Ehrlich

New York Fire Department (FDNY) Deputy Chief Richard Blatus shared his first-hand experiences during and after the World Trade Center attack on September 11, 2001, during Naval Support Activity Monterey's 9/11 Remembrance Ceremony in front of Herrmann Hall, Sept. 11.

Blatus, a 38-year veteran of FDNY and an NPS alumnus through its Center for Homeland Defense and Security, spoke candidly about his experience as a first responder working at the FDNY headquarters just minutes away from the World Trade Center.

"I often reflect on the day, and remember the things that will remain with me forever," Blatus recounted. "I remember the moment we recovered our leader, our chief, having been killed at the command post. I recall Capt. Jay Jonas calling out on the radio asking for assistance as he was trapped in stairwell B of the North Tower with his crew. And I remember my friend, a Deputy Chief, telling me my best friend had perished in the initial collapse."

Blatus arrived at the World Trade Center about an hour after the collapse of the North Tower.

"The scene was eerily quiet as most of the command staff had perished, and the remaining chief officers were struggling to regroup and find surviving fire fighters," Blatus described. "By noon the next day, I was back in headquarters working alongside the remaining staff to help get our department back on its feet," he continued. "Throughout the next couple of weeks, most of us split our time working at headquarters during the day and the World Trade Center site at night, working overnight to recover our missing comrades."

Blatus continued his remarks by recognizing the men and women in attendance.

"Looking out this morning I see people who are here to make a difference," he said. "You are the next generation of homeland security professionals who will continue to develop new and innovative strategies to keep us safe. You will work hard to make sure our citizens continue to enjoy the benefit and liberties of our great nation."

Now 17 years separated from the tragedies of 9/11, Blatus said, the importance of reflection, honoring the sacrifices of the men and women who work to keep our nation safe, could not be more critical.

A 2008 graduate of NPS' Center for Homeland Defense and Security, Blatus continues to advance through the largest municipal fire department in the nation. In fact, when he returns to New York later this week, Blatus will be promoted to Deputy Assistant Chief, one of 16 executive staff positions in the department.



ET1 Donnie Williams presents New York Fire Department (FDNY) Deputy Chief Richard Blatus a folded ensign during Naval Support Activity Monterey's 9/11 Remembrance Ceremony in front of Herrmann Hall, Sept. 11. (U.S. Navy photo by MC2 Michael Ehrlich)

FACULTY news & notes

The Naval Postgraduate School (NPS) recognized four of its top faculty by conferring the honored title of Distinguished Professor in recognition of their exceptional and sustained scholarly, teaching and service accomplishments.

Dr. John Arquilla, Department of Defense Analysis; Dr. Moshe Kress, Department of Operations Research; Dr. John McEachen, Department of Electrical and Computer Engineering; and Dr. Clifford Whitcomb, Department of Systems Engineering, have been officially designated with the honored title, andwere recognized during the Summer Quarter Graduation ceremony in King Auditorium, Sept. 21.

"This type of recognition and designation is very humbling for me," said Arquilla. "It puts me in company with many of my finest colleagues on campus."

"[The announcement] was a little overwhelming," recalled McEachen. "I was incredibly flattered when I had learned of my nomination, and that would have been enough for me. When I was told about my selection, it was very exciting and humbling for me to be inducted into this group."

This year's honorees join a community of 45 current and emeritus faculty who hold the title of Distinguished Professor.

With more than 77 combined years of experience at NPS between the latest four designees, they have left an indelible mark on countless students that have passed through their respective classrooms ... a critical factor for any educator.

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

JIFX Helps DOD, Academia Explore Limits of New Technology

By Matthew Schehl

CAMP ROBERTS, Calif. – From the blistering tarmac at McMillan Airfield, a lightweight unmanned aerial vehicle (UAV) catapults off and directs itself into a forming swarm of fellow UAVs. A few hundred meters away, with its mission completed, a ScanEagle UAV autonomously

swoops in to hook onto a dangling line for retrieval.

Twelve kilometers beyond the airfield, a pocket-sized UAV teaches itself to navigate a dense urban environment to recognize and follow a moving vehicle, while another UAV locates the survivors of a downed helicopter to airdrop relief supplies.

These are a just a few of the many experiments carried out at the latest Naval Postgraduate School (NPS) Joint Interagency Field Experimentation (JIFX), held Aug. 6-10 at the California National Guard's Camp Roberts.

Coordinated by NPS' Consortium for Robotics and

Unmanned Systems Education and Research (CRUSER), the quarterly JIFX event brings together leading minds from academia, industry and the military to sandbox emerging technologies in austere field conditions in central California.

"It really is a collaborative learning environment with minimal rules," said Dr. Ray Buettner, JIFX director and NPS associate professor of Information Sciences. "People come out, interact and share information, and it's done with only enough structure to be safe, secure and legal." Over the five-day event, NPS students and faculty, representatives from various U.S. military commands, and specialists from cuttingedge tech firms endured the sweltering heat to put a range of new systems to the test.



A team of NPS researchers launch an unmanned aerial vehicle during an experiment in swarming unmanned vehicles at Camp Roberts during a Joint Interagency Field Experimentation program. (U.S. Navy photo by Matthew Schehl)

Next-generation unmanned autonomous systems (UAS); drone swarms (and techniques to counter them); UAS specific to humanitarian assistance and disaster relief missions; longrange communications; and, cyber resiliency experiments were all conducted over the course of the week, often with surprising results.

This thriving esprit de corps is driven by the underlying fact that JIFX has little to do with the acquisition of product, and everything to do with finding solutions ... finding what works, and what doesn't work, in meeting the needs of the Department of Defense.

The venue offers participants the

rare opportunity to test out new systems in an operational setting. JIFX provides a deconflicted federal airspace across a wide range of terrain, including urban buildings and tunnels, forests and open plains – all with direct input from potential end-users and academia.

"At JIFX, we create an environment that tries to poke holes in that wall so that industry is aware of the government challenges and the people on the government side who make requirements are aware of industry's capabilities," Buettner explained. "We have to find a way to get through that wall to stay more agile and connected to industry."

NSA Associate Professor Earns Hamming Teaching Award

By MC2 Tom Tonthat

NPS Department of National Security Affairs Associate Professor Naazneen Barma is the recipient of the 2018 Richard W. Hamming Teaching Award, presented Sept. 11.

"It's an incredible honor," said Barma.l; "I think there are a wide range of excellent teachers on this campus. I think we're really focused on the students and thatt's really important to me and the work that we do."

The Hamming Award recognizes an NPS faculty member who achieved excellence in the classroom, thesis supervision, and in contributing to student education. Barma said she tries to touch on all three elements with students. "I've been incredibly fortunate over the course of my own education to have had outstanding teachers who imparted to me their enthusiasm for the subjects they were teaching," said Barma. "That's become my abiding principle when I teach, to get across my excitement and passion for the topics that we're covering. I think that's something the students really respond to."



The Richard W. Hamming Excellence in Teaching Award is presented to NPS National Security Affairs (NSA) Associate Professor Naazneen Barma, right, by NSA department chair Dr. Mohammed M. Hafez during the 2018 Summer Quarter Graduation Awards Ceremony, Sept. 11. (U.S. Navy photo by MC2 Michael Ehrlich)

Defense Analysis Connects Student Research to SOF Needs

By MC2 Patrick Dionne

The NPS Defense Analysis (DA) department hosted representatives from various Special Operations Forces (SOF) commands for a showcase of student research, Aug. 21-23. The department's goal is to provide the operational SOF community with the opportunity to leverage the research capabilities of the department's students and faculty.

"What makes NPS unique is we are a military installation conducting academic research, and so we are expected to produce capabilities by investing in our human capital," said U.S. Army Col. Michael Richardson, NPS SOF Chair. "Bringing representatives from operational and institutional commands together in person with students and faculty members to interact is very important to keep our force informed of ongoing research.

"On the other side, we have the operational side of the force talking to the school and bringing both near-term and long-term priorities on chronic issues that they need to solve, keeping NPS aware of the problems out in the fleet and field," he continued.

The DA department's research week included representatives from eight organizations, each presenting their respective, unique research areas of interest and potential challenges to students and faculty across the university.

DA students engaged in more one-onone conversation with the command representatives, demonstrating the capabilities of the DA department while also providing keen insights into potential thesis topics.

"In the case of Research Week, it is set up to target first and third quarter students to really give these officers both the insight and acknowledgement that what they are doing is well connected with what they have done in the past," explained Richardson. "And for the third quarter students, it's an opportunity to pick a thesis proposal that suits their interests and helps them make connections with command representatives who can help them with their work."

NPS Professor Updates Local Rotary on National Intel Challenges



The Monterey Rotary Club welcomed NPS Department of National Security Affairs Associate Professor Erik Dahl, Sept. 13, for a presentation on key U.S. intelligence issues and challenges.

"A comment that resonates with me by former Director of National Intelligence Jim Clapper, that the challenges facing our country and our intelligence system today are more difficult to deal with than anything he had seen in 50 years," said Dahl.

"We as a nation, the international community and our intelligence system are facing different types of challenges then we had back during the Cold War," he continued. "Back then, we knew what the enemy was. Today, the challenges, and enemy, are varied and different."

One of the modern challenges, Dahl noted, is the need to focus on domestic terrorism

"Today, since 9/11, our intelligence community has to watch us," said Dahl. "Whether the threat is terrorism or school shootings, these are challenges that we once didn't have to face."

Dahl offered an insider's perspective on the breakdowns in communication that led to the successful terrorist attacks on 9/11.

"The most common answer to the question of why 9/11 happened is because we weren't sharing intelligence among all of the different agencies of government, up and down the chain of the federal government, and at local levels," said Dahl. "Today, we've been trying to do much better at that."

Bravo Zulu Awards

CAMPUS news & notes

-Dr. Peter Chu was elected to serve as the chair of the Global Temperature and Salinity Profile Program (GTSPP) within UNESCO Intergovernmenthe Oceanographic Commission tal (IOC). UNESCO, or the United Nations Educational, Scientific and Cultural Organization, is a specialized agency of the U.N. charged with promoting peace and security through international collaboration in education, science and cultural reform.

-Lt. Preston Tilus authored an essay summarizing the results of his NPS operations research thesis appearing in the last issue of the U.S. Naval Institute's *Proceedings* magazine. Tilus' research examined the utilization of the Navy's autonomous Sea Hunter vessel and P-8 Poseidon for anti-submarine warfare.

-Drs. I. Michael Ross, Mark Karpenko, and Ronald Proulx received a patent for their invention "Unscented Optimization and Control Allocation." The invention smooths the movements of the multi-link robotic arm performing a task using a new joint-torque control law. The invention has application for precision motion control of robotic systems used in DOD and the industry.

-Navy Capt. Elizabeth S. Okano was honored with the Program Manager of the Year award through the Navy's Acquisition Excellence Awards program. Okano, currently serving as program manager for Above Water Sensors for Program Executive Office Integrated Warfare Systems, is a 2001 graduate of NPS in Space Systems Engineering.

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

Seminar Helps Senior Officials Fine-Tune Leadership Skills

By Matthew Schehl

Senior leaders from across the Navy recently converged at the Naval Postgraduate School (NPS) to learn new ways to lean into the service's toughest command challenges.

Dozens of participants at the Navy Senior Leader Seminar (NSLS), hosted by NPS' Center for Executive Education (CEE), in late August, discovered a range of emerging "best practices" in strategic leadership: planning, communications, negotiations, effects-based thinking, risk and financial management, and innovation. The NSLS strategic negotiations segment introduced participants to William Lincoln, one of the world's pre-eminent mediations experts.

Lincoln then coached small group teams as they role-played through high-stakes strategic negotiations scenarios, where they had the opportunity to refine their tactics, techniques and procedures.

Seminar topics also covered a wide gamut of other critical issues, including Navy strategic planning, conflict management, leadership

types and styles, wellness and nutrition, ethics, communications, emerging technology trends and innovative thinking.

Through NSLS, CEE leaders say, participants learn to unlock their full potential as a leader, and more holistically understand their environment, beginning with themselves.

"This has been one of the better courses I've been through in my 30-year career," said Navy Capt. Tim 'Lucky' Kinsella, prospective commanding officer of Naval Air Station Pensacola.

"I think I'd best describe

"The overall goal of this seminar is to empower these leaders to become more effective change agents and better informed stewards of the Navy's resources," said NSLS program manager Bob Huddleston. "The attendees are a diverse mix of everything from a new O-6 about to take on a first command, to a senior O-6 going to take over a major command.

"Once they go to their new assignment, they often say, 'I'm inheriting a large organization and I've never done a major change effort; I could sure use some help.' So that's exactly what we do," Huddleston said.



Attendees at the latest NPS Center for Executive Education (CEE) Navy Senior Leadership Seminar (NSLS) practice the craft of strategic negotiations during a course exercise. Held multiple times annually, CEE's NSLS provides Navy leaders with a range of emerging best practices in strategic leadership. (U.S. Navy photo by Javier Chagoya)

The nine-day workshop was split between presentations and small group working sessions, attendees are paired with leading academics, thought leaders and senior executives from both the Navy and private sector.

it as a journey of discovery about myself: reconnecting with myself as a leader, what the Navy means to me, and what my job means to me," he added. "It's a recalibration of myself within the organization."

Focus On ... Superior Civilian Service

Naval Postgraduate School (NPS) Inspector General (IG) Victor Jarrett was awarded the Navy Superior Civilian Service Award, Sept. 18, presented by university President retired Vice Adm. Ronald A. Route for his service as NPS IG from October 2012 to September 2018.

"As many of you know, Vic is leaving government service after 40 years," said Route. "As a former Naval IG myself, and having seen many of the echelon two level IG organizations across the country, this one is by far the best. I am so pleased he was able to put this together and assemble such a great team."

During his time at NPS, Jarrett established the university's Office of the Inspector General, focusing his efforts along four distinct lines of effort – serving as an external liaison, preparing the institution for inspections, providing an exemplary IG hotline, and coordinating the Manager's Internal Control Program.

"I would like to thank Adm. Route for the great support he has given me over the past five years," said Jarrett upon accepting the award. "I would like to also thank the IG staff who have done such a great job for NPS in the past several years ... the key part of my job was mainly in making good hiring decisions.

"I would also like to thank the faculty and staff who, in my



opinion, make the magic happen for NPS and our students," he continued. "It's been a pleasure and an honor to see that first-hand during my one-on-one interview sessions ... I get excited hearing the wonderful things that we're doing for our students and the Navy."

Any Day at NPS...



Naval Postgraduate School military staff pose for a command photo following a uniform inspection outside Herrmann Hall, Sept. 28. The Navy winter uniform shift to the dress blue uniform will take effect on Oct. 1. (U.S. Navy photo by MC2 Taylor Vencill)



Naval Support Activity Monterey Commanding Officer Capt. Richard "Coyote" Wiley greets incoming NPS students during an orientation in King Hall Auditorium, Sept. 18. (U.S. Navy photo by MC2 Michael Ehrlich)



Retired Navy Capt. Paul Rinn, first commanding officer of the guided-missile frigate USS Samuel B. Roberts (FFG 58), addresses NPS students, faculty and staff during a Secretary of the Navy Guest Lecture (SGL) in King Auditorium, Aug. 28. Rinn shared a dramatic story of how leadership, training and trust saved the Samuel B. Roberts. (U.S. Navy photo by MC2 Michael Ehrlich)



Chief Navy Cryptologic Technician Jackie Turner renders a salute as he passes through ceremonial side boys during the fiscal 2019 chief's pinning ceremony in the Weckerling Center at the Defense Language Institute, Sept. 12. Six Sailors were pinned to the rank of chief petty officer during the ceremony. Turner is currently a student at the NPS studying in the applied cyber operations program. (U.S. Navy photo by MC2 Michael Ehrlich)



Yeoman 2nd Class Johnmark Rivera rings the bell for each name listed during the Bells Across America for Fallen Service Members ceremony at Naval Support Activity Monterey, Sept. 27. (U.S. Navy photo by MC2 Tom Tonthat)



The 76th graduating class of the Naval War College (NWC) Monterey partnership with NPS for Joint Professional Military Education (JPME) stands for a group portrait on the steps of Herrmann Hall, Sept. 13, 2018. Through the partnership, 5,077 officers have earned this certification since the program's inception in September 1999. (U.S. Navy photo by MC2 Tom Tonthat)

STUDENT voice

Capt. I. Benjamin Collier, USAF

Fellow Students,

The President's Student Council would like to welcome you to another great quarter at the Naval Postgraduate School. We congratulate new students on their acceptance to this prestigious institution and commend returning students for their continued efforts. In case your experience was less than optimal, please feel free to reach out to NPS representatives and let us know how we can help.

A top priority for the PSC is improving NPS processes and programs so feedback is always accepted and appreciated. To support improvement efforts, this year's Student Experience Survey covered many areas and counted with high levels of support from the student body.

On another note, Discover NPS Day is right around the corner! On 26 October 2018, more than 2,000 grade school students will be exploring the campus. This is an opportunity to make NPS shine and teach students a bit more about the military and research world. If you get an opportunity to help, I encourage you to take it.

Thank you for your time and I hope the guarter kicks off on the right foot! As always, the PSC is standing by, ready to help. We can be reached at PSC@nps.edu or via your school representative.

Sincerely, Capt. I. Benjamin Collier, USAF

Chair:	Capt. I. Benjamin Collier, USAF
Vice-Chair:	Capt. Angelica Silva-Garza, USAF
SIGS School Lead:	Lt. Christina Gatti, USN
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GSEAS Representativ	e: Lt. Cmdr. Pete Harley, USN
GSEAS Representativ	e: Lt. jg. Aaron Demers, USN
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On Campus this Month



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Historical Highlights

Retired Rear Adm. Earl E. Stone receives a congratulatory handshake Wednesday from then-NPS Superintendent Rear Adm. Robert Austin during a 1988 ceremony announcing the renaming of NPS's "Middle Road", better known today as the grassy byway flanking Herrmann Hall's West Wing. Rear Adm. Stone was an NPS alumnus, the first to return as its Superintendent (1955-57). Four others had streets renamed in their honor as well. 5th Street and Engineers Circle were renamed for faculty members Peyton Cunningham and Carl Menneken. Today's Morse Road ("South and East Roads", which runs by the police station) was renamed for the one-time president of the company which once owned the Del Monte Hotel. The route around

the golf course off Fairground Road, ("Higuera Road") honored the mourned C hallenger astronaut Michael J. Smith, a 1968 graduate of the NPS aeronautical engineering program.

Historical Highlights are provided by the Dudley Knox Library.

