Former NPS President Tighe Returns to Honor Spring Quarter Grads

By MC2 Patrick Dionne

The Naval Postgraduate School (NPS) bid farewell to 317 graduates earning 323 advanced degrees, including 27 international students, during the 2018 Spring Quarter Graduation ceremony in King Auditorium, June 15.

Deputy Chief of Naval Operations for Information Warfare, Director of Naval Intelligence and former NPS President Vice Adm. Jan E. Tighe gave the commencement speech.

“I really am delighted to join you here today. It is always special to return to NPS, it feels like coming home and that is because of the NPS family that I have here,” said Tighe.

Tighe graduated from NPS in June of 2001, earning a Doctorate of Philosophy in Electrical Engineering as well as a Master of Science in Applied Mathematics. She went on to refer to that period as a time when “the cold war was a distant memory and the threat of terrorism was not yet understood,” she said. “That, of course, would change drastically in just four short months, and for the next 17 years, our military would be focused on countering terrorism and extremist organizations.

“To face this new and much more complex world, we must recognize this changing character of war, and look for rapid technological changes that can give us an edge in the information age,” said Tighe. “Data science, artificial intelligence, human-machine teaming, machine learning, modeling and simulation, and gaming, make up the new face of modern warfare and can ensure our advantage in any fight.”

Following her remarks, Tighe was presented with a medal formally inducting her into the NPS Hall of Fame, recognizing as a “driving force in the development and use of information as a warfighting capability at the tactical, operational and strategic levels.”

The NPS Hall of Fame recognizes the accomplishments of the university’s most distinguished alumni and friends who, through the attainment of positions at the highest levels of public service, have made the greatest contributions to society, their nations, and to the Naval Postgraduate School.
NPS Launches Interdisciplinary Data Science and Analytics Group

By MC2 Patrick Dionne

The Naval Postgraduate School (NPS) has just stood up a new interdisciplinary working group to streamline the way data science is developed, taught and shared at the university and beyond.

The formation of the Data Science and Analytics Group (DSAG), announced June 22, will enable NPS faculty and students to transcend traditional academic boundaries to better provide education, research and advising across the Department of Defense (DOD) in this critical area.

“The mission of the DSAG is to coordinate and focus the unique faculty talent, student population, infrastructure, relationships, and geography of NPS in order to provide an educational platform, research program, and advisory service to organizations within the Departments of the Navy and Defense that seek to make better decisions through data science,” wrote Dr. Steven R. Lerman, NPS Provost and Academic Dean, in the campus-wide announcement.

“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,” added Dr. Robert Dell, a professor in the Operations Research (OR) department tasked with leading DSAG.

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

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 – collectively coined Big Data – has proven to be a daunting challenge.

Few organizations in the world collect more data than the DOD. Across disparate domains – intelligence, oceanography, personnel, logistics, cybersecurity, meteorology, acquisition, command and control, just to name a few – successful navigation of this data, and educating future leaders to do so, remains a critical challenge to U.S. national security.

“As part of the Navy, NPS is uniquely positioned to provide much needed research, education and guidance in this field,” Dell said. “There is so much more we can do to grow our capabilities.”

NPS faculty across campus have been making significant data science and analytics research contributions for many years. Since 2013, the OR department in the Graduate School of Operational and Information Sciences (GSOIS) has offered a track focused on data science, and since 2016, has added a graduate certificate in the discipline.

“We have embraced the growing demands for data science and analytics, but OR by itself is too narrow,” Dell said. “The field is truly interdisciplinary and must involve many departments.”

The founding of DSAG was introduced in NPS’ new Strategic Plan: 2018-2023, which called for the establishment of a data science working group which could organize existing data sources, provide an analytic capability to take on some of the nation’s most pressing issues, and cultivate the human capital necessary to integrate data science into future decision-making.

Administratively, Dell says DSAG will fall under GSOIS, but its success will greatly depend on faculty involvement beyond GSOIS.

The working group has already grown to a community of interest of more than 100 faculty members from across campus, and since DSAG was officially announced, Dell said it has seen a flurry of interest from within NPS and beyond.

“Our biggest challenge will be deciding when to say ‘no,’” he said. “The demand is far greater than our initial ability to deliver, so we need to select carefully and continue to build successes that enhance our reputation.”
NPS, NSAM Host Dining Out to Honor Battle of Midway

By MC2 Patrick Dionne

“arly brings back so many memories,” said retired Capt. Maury Wortham, a World War II veteran who served as a dental officer on board a submarine that was in Tokyo Harbor during the surrendering of Japan.

Wortham was one of four World War II veterans that joined service members, retirees and their civilian guests in NPS’ Barbara McKnitt Ballroom to honor the 76th anniversary of the Battle of Midway, June 2.

Steeped in the traditions of the Naval Order of the United States, the dinner included toasts, trivia, singing and festivities headed by the president of the Mess, Capt. Rich Wiley, who presided over the festivities and introduced the keynote speaker, Deputy Commandant for Manpower and Reserve Affairs U.S. Marine Corps Lt. Gen Michael A. Rocco, who delivered remarks highlighting the event’s theme of honoring the part the Marine Corps played in the historic battle.

“The Battle of Midway is often told as a naval story, much like the attention given to the Marines for the Battle of Iwo Jima several years later. But in both instances, the full credit belongs to our full blue and green team,” said Rocco. “To talk about the Marine Corps and not mention our brothers and sisters in the Navy, or vice versa, is to tell a part of a history that has been intertwined from the earliest days of our naval service.

“When I think of the brave Sailors and Marines who fought at the Battle of Midway, a recurring thing that always comes up is that of decisive leadership,” he continued. “This leadership was showcased, and shown at every level strategically by Sailors and Marines at their battle stations who acted quickly and at many times without direction in the face of the onslaught from the Japanese both at sea and air."

“This ceremony really recognizes one of the turning points of World War II and it is absolutely humbling, especially meeting some of the individuals that were there and answered the call,” said Maj. Bobby Tuttle, Vice President of the Mess for the event, whose role was to help move the ceremony along and reiterate the history of the battle of midway and traditions involved in the ceremony. “It was an honor to be an Army Special Forces guy at a Navy dining out with a Marine Corps General as its keynote speaker, true ‘jointness’ at its best."

Finishing off his remarks Rocco turned to his own personal experiences during Operation Desert Storm 28 years ago and told the story of a young Marine Corps Captain named Steve “Cujo” Cusamano, a name immediately recognized by Naval Support Activity Monterey personnel in attendance.

“The Hueys were returning from a mission, and despite the terrible visibility, the section leader displayed outstanding airmanship and decisive leadership to get the much-needed section of Hueys back to home base to rearm, refit, and prep for the next mission,” said Rocco of Cusamano, now retired and serving as NSA Monterey deputy since May of this year. “Cujo could have easily have finished his first mission and waited out the storm, but he knew the tactical situation was fluid and all air support was in high demand, so he piloted his aircraft back to base ready for what was next. Decisive leadership.”

The Rear Adm. John J. Schieffelin Award for Excellence in Teaching at the Naval Postgraduate School was awarded to Dr. Frank Kragh, Associate Professor in the Department of Electrical and Computer Engineering.

“I was very pleased and surprised ... There are a lot of faculty members here so the odds aren’t very high,” Kragh said. “And for a professor with smaller class sizes to be considered for the award is just really nice.

“When you are a professor, you go into a classroom and you don’t take any of your management with you. Obviously, there are performance reviews and things like that, but it’s mainly students that you have the most interaction with,” he continued. “It means a lot to me to get this type of recognition from the students because it means that they feel like I am doing a great job and their opinion matters the most to me.”

Kragh has an extensive engineering background that predates his time here as a professor. As a prior instructor at the Naval Nuclear Power School for four years, he helped shape the Navy’s engineering future by imparting his knowledge to all of the Sailors who came through his classroom.

“I came back to the Naval Postgraduate School because I really enjoy teaching military students ... They are all very motivated and have a real need and desire for the education,” Kragh said. “I didn’t get my Ph.D. and immediately start looking to teach at a university. I only applied once I found out about an open position here because it has the military mission that is the important ingredient.”

Have a story to share? Public Affairs is constantly seeking interesting news and stories for Update NPS. Send your tips to pao@nps.edu.
Spring Grad’s Thesis Examines the Space Domain

By Matthew Schehl

A Spring Quarter Naval Postgraduate School (NPS) graduate received two of the school’s prestigious student awards for the master’s thesis he wrote on his way to dual master’s degrees.

U.S. Army Maj. Philip Swintek was presented with both the Association of the U.S. Army, Gen. Joseph W. Stilwell Chapter, Award for Outstanding Army Student and the Space Systems Operations Award for top space systems student. The awards reflect the honoree’s outstanding performance at NPS, as demonstrated by academic achievement, thesis research, motivation and community involvement.

“I worked really hard while I was here,” Swintek said. “It’s always nice to have your work recognized, to know that the long hours at the kitchen table were worth it, and hopefully had an impact.

“More important than the award, I just hope that the things I studied, and specifically my thesis, could potentially be impactful to folks like me across the world someday,” he added.

Swintek’s thesis, entitled “Critical Vulnerabilities in the Space Domain,” explores the potential of using nanosatellites as an alternative means of satellite communications. The U.S. military has become increasingly reliant on traditional satellites for a range of activities, from navigation to communication. This reliance, however, presents a susceptibility to adversarial actions.

“Nanosatellites are a low cost and expedient near-term solution for this vulnerability,” Swintek wrote. “A constellation of nanosatellites in low earth orbit […] will provide an alternative method for satellite communications.”

Swintek’s community of Special Operations Forces (SOF), in particular, rely heavily on space-based technology. Satellite communications allow operators to communicate literally across the globe in real time; GPS systems enable precision navigation; remote sensing collects imagery to help plan missions and make decisions.

“I think better understanding the systems I rely very heavily upon will make me a better commander,” Swintek said. “Most of us don’t know them because it’s a tricky subject and I think more people in our field probably should understand this technology that we use to do virtually everything that we do.”

Swintek came to NPS to complete his studies in the university’s challenging defense analysis program, sponsored by the U.S. Army Special Operations Command. But while he was on campus, he decided to make the most of his time, and pursued getting a second degree.

“[I] just decided I wanted to try and get a second master’s degree in science while I was here, and space systems seemed to be the most feasible and the most applicable to what I do normally in the Army,” Swintek said. “It just felt like a natural fit.”

With graduation now behind him, Swintek reports to the Army’s special operations command in Fort Carson, Colorado, to put his education to use.

NPS Recognizes Wendt as Distinguished Alumnus

By Javier Chagoya

During a visit to the university campus, NPS leadership surprised Lt. Gen. Eric P. Wendt with the presentation of the Distinguished Alumnus award during a brief ceremony on the Herrmann Hall Quarterdeck, May 31. Wendt is a 1995 graduate of the special operations/low-intensity conflict program, and later returned to serve as an Army Fellow in the Department of Defense Analysis.

“As a student at NPS, I learned a lot about special operations that would later help me in forming strategies pertaining to security issues in the Philippines and in South Korea,” said Wendt. “Also, it was in 1994-1995 that I was exposed to ideas at NPS that were just surfacing in the realm of cyber warfare and the building of cyber networks. And the list of the impactful research happening at NPS just goes on and on … I benefited greatly from my education here.”

Wendt was especially thankful to the faculty and staff attending the ceremony, some who served as mentors and professors in the mid-90s, for the special recognition carried by the Distinguished Alumnus Award.

“It was your thoughts, your theories and your ideas in those times while I was working with Secretary of Defense Robert Gates, Panetta, Under Secretary of Defense for Policy Michelle Flournoy, including then General Jim Mattis, pushing ideas which emanated from you, and you have made an enormous difference,” said Wendt.

“And as far as the students who are attending now at NPS, you have no idea how large an impact they will have and you continue to make that possible.”
NEPTUNE Challenge Applies Hacking for Defense to DOD’s Energy Issues

By Matthew Schehl

Graduate students and faculty from universities across the country recently converged on the Naval Postgraduate School (NPS) to explore new ways of tackling critical energy security issues.

The ONR NEPTUNE Challenge Summit, hosted by NPS’ Energy Academic Group May 21-23, brought together scores of academics involved in the Office of Naval Research (ONR)-funded program to impart a new model for solving defense-related problems.

Over the three-day seminar, participating NEPTUNE schools – Massachusetts Institute of Technology, Purdue, Arizona State University, University of California at Davis, NPS, and others – were brought up to speed with Hacking for Defense (H4D), a Stanford-developed model of adapting best practices from Silicon Valley startups to the Department of Defense.

“We wanted to introduce the basic concepts associated with the H4D methodology such that they could start applying them in a process tied to their NEPTUNE research,” said Ray Dick, executive director of the nonprofit Hacking for Defense, Inc.

The event was part of a new initiative, the Naval Innovation Process Adoption (NIPA), to streamline ONR’s approach to developing new technologies. Launched in March at NPS, NIPA seeks to connect teams of engineers, scientists, MBAs, operators and subject matter experts using the H4D model to expedite innovation in a reliable, efficient manner.

“Supporting ONR and NIPA is an exciting opportunity, and aligns perfectly with the kind of innovative learning we do well at NPS,” said Dan Nussbaum, EAG Principal.

“The next step for NPS is to send instructors to an intensive training program later this month to learn how to teach the H4D method and incorporate it into our courses at NPS.”

The NIPA program incorporates this methodology in its drive to spur innovation in the Navy and Marine Corps, and the ONR NEPTUNE Challenge Summit brought this to discovering new ways to improve energy conservation, generate renewable energy and implement energy-efficient technologies.

Future Ph.D. Student Earns Spring Quarter’s Navy League Award

By Camille Hitchcock

Naval Postgraduate School (NPS) student U.S. Navy Cmdr. Chris Angelopoulos has been recognized with the quarter’s top academic honor, receiving the Monterey County Navy League Award for Highest Academic Achievement during the 2018 Spring Awards Ceremony in Herrmann Hall, June 5.

“This represents a lot for me personally ... I am very thankful to be nominated, and to accept the award,” said Angelopoulos.

The Navy League Award is achieved through outstanding academic performance, preeminent thesis research, motivation and the ability to possess the qualifications of a leader.

“It was a lot of work,” continued Angelopoulos. “It ended up being a lot of weekends getting in the material and just trying to incorporate it.”

Angelopoulos was also acknowledged for community involvement, as well as research performed for his thesis, “Augmented Reality in the Maintenance Domain.”

Following graduation, Angelopoulos will remain at NPS, working in the university’s information technology sector while he continues his education.

“I think I’m going to work in ITACS [Information Technology and Communications Services] in the cyber operations center,” Angelopoulos said, “And at the same time, I will be simultaneously working on my Ph.D.”

Cdr. Chris Angelopoulos is the recipient of the Spring Quarter’s top academic honor, receiving the Monterey County Navy League Award for Highest Academic Achievement during the 2018 Spring Awards Ceremony in Herrmann Hall, June 5. (U.S. Navy photo by Javier Chagoya)
NPS Inducts Newest Member into Esteemed Hall of Fame

By Matthew Schehl

Vice Adm. Jan E. Tighe was presented with the NPS Hall of Fame medal – honoring her momentous service to the nation, the Navy and NPS – at the Spring Quarter Graduation ceremony held in King Auditorium, June 15, for which she was the guest commencement speaker.

Tighe, the first woman to command a numbered fleet in U.S. Navy history, humbly accepted the award and, asking NPS faculty and staff to rise, directed the audience applause to them.

"It's always special to return to NPS, it feels like coming home and that is because of the NPS family that I have here," Tighe said.

"Without a doubt, I am where I am today because of the partnership, support and things we accomplished here in 2013," she continued. "I want to say thank you very much to all of you, and I am accepting the NPS Hall of Fame induction on behalf of all of us, together."

From November 2012 through October 2013, Tighe served as the president of NPS. Her tenure came at a challenging time for the university, taking over just after the release of a Naval Inspector General report that led to unprecedented change at the school.

"During her time at NPS, Admiral Tighe helped lead the school out of a very difficult period in its history," recalled current NPS President, retired Vice Adm. Ronald A. Route, who succeeded Tighe in the office. "After that rough time, she was instrumental in putting NPS back on the path to success.

"Admiral Tighe’s induction in the NPS Hall of Fame is a tribute to her long history of service to her country and her many achievements," Route stressed. "It also recognizes her as a distinguished ambassador from the school and is a testament to the high level of accomplishment and excellence that NPS is known for."

Tighe’s intimate understanding of the university was instrumental in her accomplishments on campus as its senior leader. In June 2001, she earned her Ph.D. in Electrical Engineering from NPS, as well as a master’s degree in Applied Mathematics.

When she returned to the fleet after graduation, she brought her new knowledge forward, she said, applying it within several organizations including the National Security Agency and U.S. Cyber Command, among others.

In April 2014, she became the first woman to serve as a numbered fleet commander when she took charge of the Navy’s Fleet Cyber Command, U.S. 10th Fleet (FCC/C10F). In this position, she was responsible for executing a full spectrum of the Navy’s offensive and defensive cyber, information network, electromagnetic, space and signals intelligence operations.

Tighe is the 23rd person to be inducted into the NPS Hall of Fame in the institution’s 109-year history.

The NPS Hall of Fame recognizes the accomplishments of the school’s most distinguished alumni and friends who, through the attainment of positions at the highest levels of public service, have made the greatest contributions to society, their nations, and to NPS.

Focus On ... Supporting Gold Star Families
A Monthly Look at Names and Faces on Campus

Education Services Facilitator Vanessa Ann Anderson proudly serves as the local point of contact for the Navy Gold Star Program for the NPS and Naval Support Activity (NSA) Monterey communities. The Navy Gold Star Program aims to provide long-term support to the surviving families of Sailors who have given the ultimate sacrifice in service to their nation.

“We have promised to take care of our own by providing support services and outreach to surviving families,” said Anderson. “Typically, a blue star represents a member who is currently on active duty, so when a service member falls, that blue star turns gold, hence the Gold Star.

“For me, working with Gold Star Families is a privilege,” she continued. “Coming from a family in which my two grandfathers and my dad all served in the Navy, I can remember my grandpa talking about friends that he lost while on active duty and it really impacted him and my grandma.”

With the invaluable support provided by the program, Anderson says there are many ways the community can join her in supporting Gold Star Families.

One way, she says, is to help raise awareness and support of the program at your current command. Another way is to ensure each Gold Star family still feels connected to their Navy family.

You can also support Gold Star Families by participating in the organization’s annual Bells Across America ceremony every year in September, Anderson says, where each Sailor who has fallen over the previous year is individually honored.
Any Day at NPS...

Fellow Students,

Welcome to all 540 new students joining us on campus this quarter! NPS is an amazing university with so many resources available to students, and an outstanding staff eager to assist students and make the best of our time here as students.

The President’s Student Council is a volunteer student organization here to serve you and to be your advocates working with NPS and NSA Monterey leadership to make your time at NPS a great experience. If you have any concerns and you’re not quite sure which direction to go, please feel free to reach out. We may not have all the answers but we can do our best to help get you there. Each school has a student representative who can help with questions specific to your program -- find your school’s representative listed below.

As always feel free to contact the President’s Student Council for any concerns you may have or any suggestions that would be useful to NPS leadership. Thank you for your hard work and good luck with your studies! As always, feel free to reach out to PSC directly at PSC@nps.edu or contact your school representative.

Sincerely,
Lt. Tanya L. Herfi, USN
Chair:
Lt. Tanya Herfi
Vice-Chair:
Capt. Ben Collier
SIGS Lead:
Capt. Alejandro Bihar
SIGS Rep:
Lt j.g. Anton Balsirow, Capt. Matt Grill, Lt j.g. Tim Cole, Maj. Peter Cox, Capt. Dan Grant
GSOIS Lead:
Master Sgt. Alex Eudy
GSOIS Rep:
Lt. Cmdr. Shivashankar
GSEAS Lead:
Lt. Josh Malia
GSEAS Rep:
Lt. Cmdr. Pete Harley, Lt j.g. Aaron Demers
GSBPP Lead:
1st Lt. Helene Caniac
GSBPP Rep:
Capt. Tyler Flansburg

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

Lt. Joshua Bowling, left, with his thesis advisor Distinguished Professor Dr. Young Kwan discuss his research on fluid-filled structures with multiple composite compartments, subject to low-velocity impact in Spanagel Hall, June 10. (U.S. Navy photo by Javier Chagoya)

The 75th 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, June 7. (U.S. Navy photo by MC2 Michael Ehrlich)

NPS high school and college STEM (Science, Technology, Engineering and Math) summer interns met with NPS leadership including retired Vice Adm. Ronald A. Route, Chief of Staff Capt. Mike Ward and Provost Dr. Steven Lerman, June 28. (U.S. Navy photo by MC2 Michael Ehrlich)

Religious Program Specialist 1st Class Isaiah Linares practices mouth-to-mouth resuscitation techniques on a CPR “Manikin” during the latest CPR/AED/First Aid class conducted by the NSA Monterey Occupational Safety and Health Office. The installation is offering free courses. (U.S. Navy photo by Melinda Larson)

The NATO Science and Technology Organization Information Systems Technology-129 (IST-129) Board held its latest meeting on the NPS campus, June 13, hosted by IST-129 board member and NPS Chief Information Officer Joe LoPiccolo. (U.S. Navy photo Javier Chagoya)
On Campus this Month

**HAPPY INDEPENDENCE DAY**

July 4
Independence Day

July 5
Provost Open Office Hours
3:30 p.m.
Herrmann Hall, Mezzanine, Room M12

July 6, 18, 31
DPMAP Training
8:30 a.m. to 4:00 p.m.
at Ingersol 122

July 13
Defense Energy Seminar
Intro to Digital Real-Time Simulation
1:00 p.m. at ME Lecture Hall

July 24
Special Guest Lecture Series
With Vice Adm. Bruce Lindsey
3:00 p.m. King Hall

July 27
Defense Energy Seminar
Megatrends in the Electrical Power Industry
1:00 p.m. at Ingersol 122

Historical Highlights

Congratulations, new NPS faculty! It’s 1987 -- Don’t forget to pick up your copy of the “FOM,” your guide to “how to be successful at NPS without falling overboard.”

31 years ago, just about everything you needed to know could be covered in this handy booklet, from Academic Associates to Waste, Fraud and Abuse. Look under C to get a Computer Account (There is a minimum of red-tape involved), under N for Name Tags and under S for all about Spending Money. (Take note, DTS fans: Travel still takes two full pages to explain.)

Do’s and Don’ts are here, of course; turn in your grades on time, don’t lecture past your lecture time, and “get to know your students. They are mature adults, highly motivated, and are an excellent learning resource for you.” Good advice. Remember not to smoke in the classroom, either.

Read the FOM in the NPS Archive, Calhoun: https://calhoun.nps.edu/handle/10945/52678.

*Historical Highlights are provided by the Dudley Knox Library.*