



NPS ITACS Department Honored for Achievement with DON IT Excellence Award

By Naval Postgraduate School Public Affairs

The Information Technology and Communications Services (ITACS) department at the Naval Postgraduate School (NPS) received the prestigious Department of the Navy (DON) IT Excellence “Defend” Award on Feb. 16 at the West Coast DON IT Conference in San Diego.

The award recognized NPS’ evaluation of a cyber readiness tool, “Nova,” conducted under a Cooperative Research and Development Agreement (CRADA) with Rebellion Defense. The Nova tool is designed to continuously test the defenses of a computer network, simulating a variety of cyber threats – a process also known as “red teaming” – in order to ensure operational readiness of the network at all times.

DON Chief of Information (DON CIO) Aaron Weis presented the award to NPS Command Information Officer Scott Bischoff and Deputy CIO Robert Sweeney, representing the NPS ITACS team.

“We can let the software run autonomously, or plan complex scenarios, run them with or without notice, debrief, address your shortcomings, and repeat the process. Our cybersecurity cycle is constant – we are always ‘on deployment.’ Tools like this allow us to keep pace.”

-NPS Command Information Officer Scott Bischoff

“Defending the network is a key tenet of the Information Superiority Vision and will continue to be a team effort across the Department of the Navy, so I’m honored to recognize the work done by the team at NPS for their work with Rebellion,” said Weis. “Future Sailors will no doubt benefit from the lessons we learn from this important pilot.”

NPS was one of a number of commands competing for the DON IT Excellence Award, recognizing excellence in Information Management (IM) and Information Technology (IT) within the DON.

Bischoff, a retired Navy captain and naval aviator, compared the approach of the software demonstrated during the “Nova” pilot program to milestones known in the aviation community – adversary training and pre-deployment workups.

“In my experience in the ship-air wing team, we’re used to training for months prior to deployment – plan, brief, fly, then debrief to hammer home the lessons,” said Bischoff. “We do workups with your ship before deployment and each CO gets readiness measures along the way. Cyber readiness software such as the tool we tested similarly point out our readiness gaps. They make it possible to view the network from a readiness and currency perspective – the team and the equipment.”

To read the full story, please visit our [website](#).



NAVAL POSTGRADUATE SCHOOL

UPDATE
NPS

- p2 NPS, U.S. Pacific Fleet Launch Nimitz Research Group
- p3 Annual Menneken Awards Honor NPS Faculty for Research Achievements
- p4 NPS Student, Professor Win 2021 USNI Information Warfare Essay Contest
- p5 NPS Conducts Comprehensive Study Bridging Cyber and Electronic Warfare

**Women’s History
Month**

March 2022

NPS, U.S. Pacific Fleet Launch Nimitz Research Group

By Lt. Cmdr. Ed Early

The Naval Postgraduate School (NPS) and Commander, U.S. Pacific Fleet (PACFLT) are joining forces to establish the Nimitz Research Group, an organization which will leverage NPS' educational and research capabilities and institutional knowledge to meet the needs of the Pacific Fleet.

Created under the aegis of NPS' Naval Warfare Studies Institute (NWSI), the Nimitz Research Group will consist of NPS faculty and students who will serve as an extension of the PACFLT staff in Hawaii, participating in fleet exercises and events and providing additional research capacity and subject matter expertise.

The launch of the Nimitz Research Group was announced on Feb. 16 by the president of NPS, retired Vice Adm. Ann E. Rondeau, and Adm. Samuel Paparo, Commander, PACFLT.

"The establishment of the Nimitz Research Group marks a further evolution in our outstanding partnership with the U.S. Pacific Fleet," said Rondeau. "We have always seen NPS as a center of excellence and innovation, a place where our faculty and students work together to solve the operational challenges of our fleet and force. Through the Nimitz Research Group, we will be able to provide those solutions by deploying our talent and our experience in direct support of our Pacific Fleet partners."

The Nimitz Research Group is modeled after NWSI's Bucklew Research Group, which already provides similar support to Naval Special Warfare (NSW) through studies and research by Navy SEAL officers attending NPS on a two-year master's degree program. Bucklew scholars serve as an extension of NSW Group commands, who in turn benefit from the SEALs' education, research efforts, interactions with the academic community, and proximity to Silicon Valley.

During a meeting with academic and industry leaders at NPS in October 2021, Paparo – a graduate of NPS' Systems Analysis program – expressed a desire to similarly leverage the unique capabilities of NPS to support COMPACFLT's priorities and research needs. Paparo recognized the value of utilizing the deep expertise of NPS faculty members as well as the operational experience of NPS' 2,500 mid-career officers, senior non-commissioned officers and civilians.

The example set by the Bucklew Research Group proved to be an ideal model for PACFLT's requirements. As a result, the Nimitz Research Group was conceived with the goal of providing coherence and unity of action for NPS' support to PACFLT.

"The Nimitz Research Group links the intellectual rigor of NPS, its key location in the nation's hub of technical innovation and the expertise of innovative warfighters in the Pacific Fleet to research, develop and implement new and dynamic combat capabilities," said Paparo. "Together we will build critical advantages over our competitors to maximize our strengths – battlespace awareness, agility, maneuverability and collective capabilities of the joint forces."

According to U.S. Marine Corps Col. Randy Pugh, deputy director of NWSI, the main idea behind the Nimitz Research Group is its multi-disciplinary nature. As the group consists of members from all services, warfare communities and academic programs, every problem is analyzed and solved using many different lenses and with a tremendous wealth and diversity of experiences and expertise.

"As a result, you end up with a really rich and well-informed solution to a particular problem," Pugh said. "The general theme is that this is not just the collective activity of individuals, but rather a whole which is very much greater than the sum of its parts."



The Naval Postgraduate School (NPS) and U.S. Pacific Fleet announced the establishment of the Nimitz Research Group, Feb. 16. Under the aegis of NPS' Naval Warfare Studies Institute, the new organization will leverage NPS' interdisciplinary education and research capabilities and institutional knowledge in new ways to meet the needs and emerging challenges of the Pacific Fleet. (Courtesy asset)

Annual Menneken Awards Honor NPS Faculty for Research Achievements

By MC2 James Norket

Dr. Marcello Romano of the Department of Mechanical and Aerospace Engineering and Dr. Di Zhang of the Department of Electrical and Computer Engineering, have been named the 2021 winners of the Carl E. and Jessie W. Menneken Research Awards. Presented annually, the Menneken awards recognize two Naval Postgraduate School (NPS) faculty for exceptional scholarly research that has a direct impact on Navy and defense operations.

The Menneken Award for Highly Meritorious Research, won by Zhang, recognizes a junior NPS faculty member who has exhibited outstanding research achievement in science, engineering or technology. Zhang's research involves the development of power electronics and energy conversion systems for the Navy's most advanced shipboard applications. He has been issued 35 U.S. patents with three pending patent applications, published 22 papers in top IEEE journals, and presented 22 papers at leading international conferences.

"It's a great honor and also kind of a surprise," said Zhang. "My mentoring team really gave me a lot of support and encouragement. They told me that based on what we have achieved, maybe I can submit a package and I might just win it."

Zhang currently leads a \$3 million NASA project devoted to solid-state circuit breaker technology that is directly applicable to the Navy's future fleet medium voltage DC power system, as well as a National Science Foundation project to develop a modular, multi-level rectifier.

The Menneken Award for Significant and Sustained Contributions, presented to Romano, is given to a senior faculty member whose work represents a sustained impact on the effectiveness of the U.S. Navy and DOD.

Romano has been a staple at NPS since joining the faculty in 2004. He is a member of NPS' Space Systems Academic Group (SSAG), is a founding director of the university's Spacecraft Robotics Laboratory and serves as a lead for NPS on NASA's Astroautics Project.

He is also a rare two-time winner of the Menneken, receiving the award for Highly Meritorious Research as a junior faculty member 15 years ago.

"It's a very meaningful achievement for me," said Romano. "Especially considering that at the beginning of my career in 2006, I won the junior Menneken Award. The first one was a very important push for my career and a great energizing event, and now winning the senior one kind of ties my career back and it comes full circle."

Romano's award-winning research has focused on the areas of spacecraft proximity maneuvering and orbital robotics, which are of critical importance with direct applications to defense activities in space.

The Astroautics project aims at developing and testing new dynamic



With the announcement of the 2021 winners of the Menneken Awards for Excellence in Scientific Research, Dr. Marcello Romano became a rare dual winner, recognized for sustained contributions this year and in 2006 as a junior faculty member. Romano joins Dr. Di Zhang of the Electrical and Computer Engineering Department as the latest winners of the prestigious research award.. (U.S. Navy photo by Mass Communication Specialist 2nd Class James Norket)

models, and guidance and control algorithms for the maneuvering of autonomous robotic spacecraft. The project utilizes NASA's "Astrobee" free-flying robotic vehicle inside the International Space Station, with the ultimate goal of developing autonomous robotic assistants for future NASA astronauts.

The Astroautics Engineering and Operations team lead, Dr. Jennifer Hudson, SSAG Research Associate Professor, has worked very closely with Romano for the last few years, and says he is very deserving of the award.

"He's great," Hudson said. "He's really well respected within the international research community and has mentored a lot of students who have gone on to have pretty impressive careers in their own right. He's been a great mentor for a lot of people, and sort of spread his influence throughout the research community."

Romano attributes his success to those that have helped him along the way and says that he could not have replicated his achievements anywhere else in the world.

"I sincerely think that NPS is a unique environment," he said. "And what I have achieved, the way I have achieved it, would have not been possible elsewhere because of the professionalism and the self-motivation of our students."

Established in 1988, the Carl E. and Jessie W. Menneken Awards for Excellence in Scientific Research are sponsored by the Naval Postgraduate School Foundation. The Menneken Endowment is used to provide annual awards to faculty, recognizing highly meritorious research with identifiable impact on the Navy and DOD technology.

NPS Student, Professor Win 2021 USNI Information Warfare Essay Contest

By MC2 Tom Tonthat

U.S. Navy Cmdr. Edgar Jatho, a doctoral student in the Naval Postgraduate School (NPS) Department of Computer Science, and his advisor Assistant Professor Joshua A. Kroll have been named the winners of the U.S. Naval Institute (USNI) 2021 Information Warfare Essay Contest for their piece, [“Artificial Intelligence: Too Fragile to Fight?”](#)

Jatho and Kroll were honored at an awards ceremony during WEST 2022, a large naval conference and exposition in San Diego, Feb. 16-18. In addition, their award-winning essay has been published in the [February issue of USNI’s Proceedings](#).

The essay cautions on the overreliance of AI and raises awareness of potential issues and exploits that can affect its effectiveness in the field. Jatho got the inspiration to write about the essay for the annual USNI contest while taking Kroll’s Trustworthy and Responsible AI [course](#) in 2020.

“The course involved reading leading thinkers across disciplines about AI, automation and algorithms,” said Jatho. “It brought up the challenges and difficulties in implementing safe and ethical systems that leverage the technology ... Now that we have this big impetus by the DOD to adopt artificial intelligence and machine learning into technology on all kinds of different levels and solutions, it’s easy for us to forget some hard-won lessons.”

In addition to his NPS coursework, Jatho was inspired by one of the presenters in NPS’ longstanding [Secretary of the Navy Guest Lecture \(SGL\)](#) series. During his October 2021 lecture on future of warfare, [retired U.S. Navy Adm. James Stavridis](#) cautioned how the military’s overreliance on advanced technology can leave it vulnerable to massive disruption.

“Dependence on a new technology like cyberspace, artificial intelligence or nanotechnology will enable you to move forward,” said Stavridis during the SGL. “But does it create an Achilles’ heel? Often it does.”

“Based on all of the research that I’ve been reading of what’s possible, it really got me to think,” continued Jatho. “[AI] can be a very complex and difficult problem because you can find support that says it’s doing a great job. Then suddenly when it gets to the battlefield, you find that it’s extraordinarily brittle and easy to break.”

Jatho credits the many resources at NPS supporting his education and research, and the opportunities to apply his studies, for his winning piece. Leading among them is Kroll, Jatho’s advisor and co-author of the essay.

“I’m quite proud that we in NPS can be in this position of thought leadership for the Navy and we can do the work to really think strategically,” said Kroll. “That’s something that I don’t think comes as naturally from other institutions that aren’t as focused on defense-oriented problems.”



Computer Science doctoral student U.S. Navy Cmdr. Edgar Jatho, left, and his advisor Assistant Professor Joshua A. Kroll are the winners of the U.S. Naval Institute 2021 Information Warfare Essay Contest with their award-winning piece, “Artificial Intelligence: Too Fragile to Fight?”. (U.S. Navy photo by Mass Communication Specialist 2nd Class Tom Tonthat)

As the winning essay, the USNI presents Jatho and Kroll’s cautions about AI as part of its mission to advance the professional, literary and scientific understanding of sea power and other issues critical to global security.

It is critical for NPS faculty and students to contribute their work to these kinds of leading venues, Kroll says, that collect and distribute these ideas to the naval and defense community.

“They’re a trusted voice in this DOD community,” he says, “and I hope we can have an impact with how people can make our naval capabilities support the execution of the mission in a more robust and trustworthy way.”

Jatho continues the pursuit of a Ph.D. in Computer Science at NPS, and is slated to teach at the Naval Academy following graduation as part of the Permanent Military Professor program.

NPS Conducts Comprehensive Study Bridging Cyber and Electronic Warfare

By Matthew Schehl

In a way that only the Naval Postgraduate School (NPS) can, researchers are in the final stages of a study exploring the convergence of electronic and cyber warfare.

Identifying a roadmap to meet the technological and acquisitional challenges inherent in ensuring American dominance across the future Electromagnetic Spectrum (EMS), this effort has the potential to inform research investments for years to come, according to the project's NPS lead, U.S. Navy Cmdr. Chad Bollmann, director of the university's [Center for Cyber Warfare](#) (CCW).

"Having the best technology is the first step, but you also have to acquire, integrate and practice that technology if that technology is going to be effective," Bollmann continued. "Cyber is already cross-disciplinary; to effectively analyze the convergence of cyber with another discipline requires a team with technical depth across many areas as well as operational experience to ensure your proposed solutions are 'Navy-proof'."

NPS faculty members Bret Michael, chairman of the [Cyber Academic Group](#), and Ric Romero, who runs the [Center for Joint Services](#)

[Electronic Warfare](#), each brought a wealth of field experience in EW and cybersecurity, respectively. Lt. Col. Michael Senft, Military Faculty Lecturer in the computer science department, is a career Army Information Network Engineering Officer. CCW Faculty Research Associate Darren Rogers recently retired following a 24-year Navy career – enlisted and officer – in the Information Warfare community.

"Having been part of the Navy starting in the early '90s, I've seen first-hand how things have changed with the ever-networked world and the proliferation of technologies the Navy has leveraged in the electronic and information warfare environments," Rogers said.

It's the ability to tap into diverse and multi-service expertise like this that truly sets NPS apart, Bollmann stresses, uniquely positioning the university to undertake this study.

"NPS is by nature joint and interdisciplinary," Bollmann said. "Our ability to combine both the deep academic expertise plus the military practitioners in uniform with diverse kinds of fleet experience and fleet connections really is why we were chosen to conduct this study."

Naval War College Monterey Honors Grads, Bids Farewell to Longtime Teammates

By NPS Public Affairs

The Naval War College, College of Distance Education program at the Naval Postgraduate School turned a page in its 22-year history with the retirement of two of its founding members, along with its longtime academic coordinator, January 31.

With more than 60 years of experience between the three members of the long-running program, Associate Dean Fred Drake, Professor Mitch Brown, and Academic Coordinator Rose Drake were celebrated for their contributions to federal service during the small virtual ceremony.

Each one has more than 20 years of experience in working for the NWC's Joint Professional Military Education program at NPS. Their contributions to the Navy and DOD were recognized by the Dean of the College of

Distance Education for the Naval War College (NWC), Professor Walt Wildemann via a remote connection during the virtual ceremony in NPS' Glasgow Hall.

During the ceremony Wildemann conferred to Fred Drake the title of Associate Dean Emeritus for his distinguished service, one of only a handful of dean emeritus titles to be awarded by NWC. NPS Provost Scott Gartner also attended the virtual farewell and recognition ceremony.

In one of NWC Monterey Chair Fred Drake's final acts, he and the Monterey College of Distance Education team recognized the latest class of honor graduates during a ceremony a few days prior.

CAMPUS news & notes

Team NPS,

The events emerging in Ukraine are tragic in every respect. Like many of you, I have been reflecting on the impact to the people there and the challenging times ahead for the future of Ukraine, Europe and the way of life we share with all democratic nations. For many of us here, the days and weeks ahead will be a source of great worry and consternation but we are united by the liberties we collectively cherish.

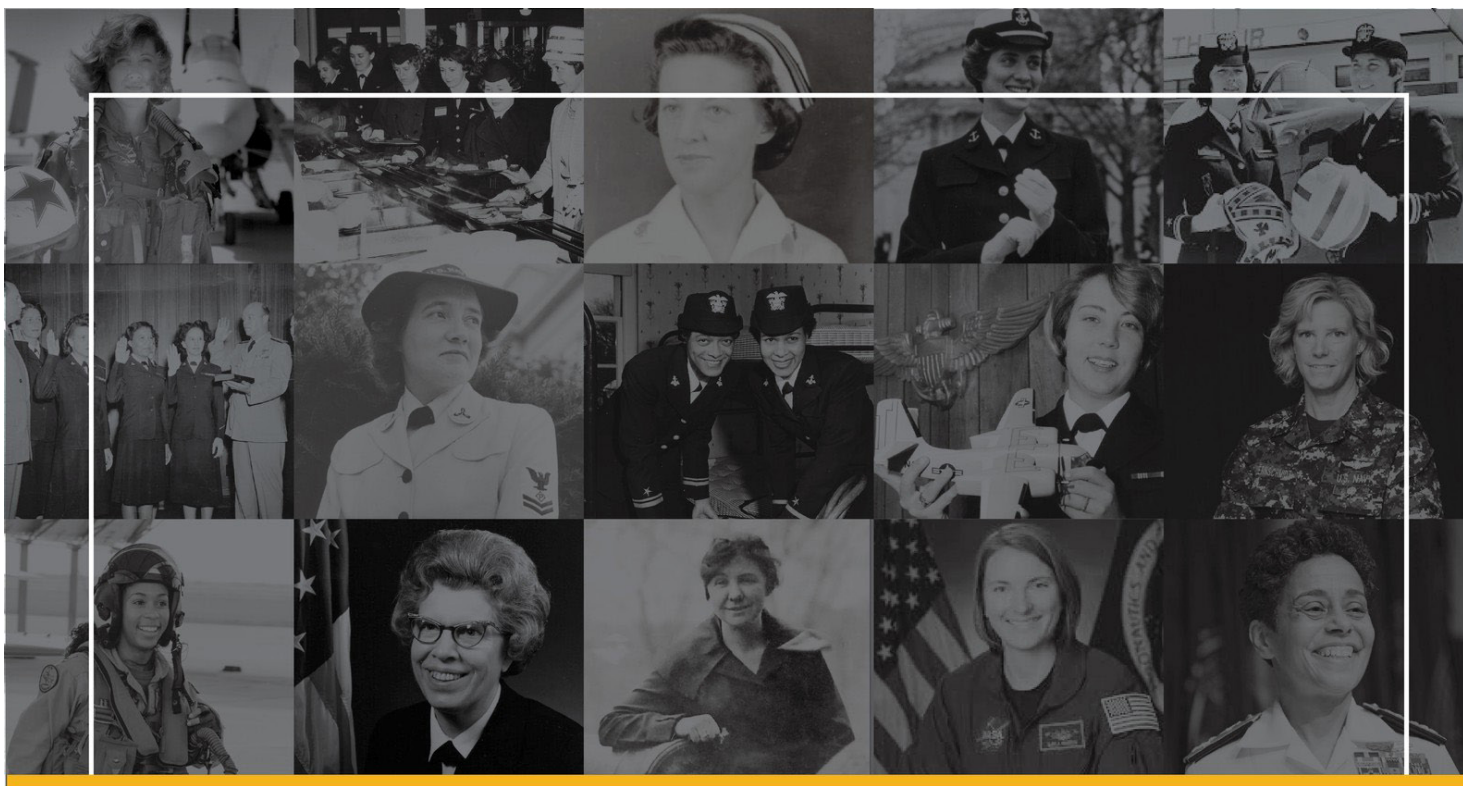
As both a military command and an institution of higher learning, NPS is an interservice, interagency and international campus with equities in the conflict on multiple levels. First and foremost, we have students here from Ukraine along with faculty, staff and other students who also have friends and family in Ukraine who are threatened by the escalating situation there. Know that as a campus and community, we understand and support you and your loved ones.

At NPS, we reflect the best of America and our partners. We are thought leaders and experienced warriors bound by shared values and what we know as a simple truth: that freedom is worth defending.

With great respect,

Ann E. Rondeau, Ed.D.
Vice Admiral, U.S. Navy (Ret.)
President, Naval Postgraduate School

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



CELEBRATING NAVAL WOMEN

WOMEN'S HISTORY MONTH 2022



MyNAVYHR
Serving Sailors 24/7

Any Day at NPS

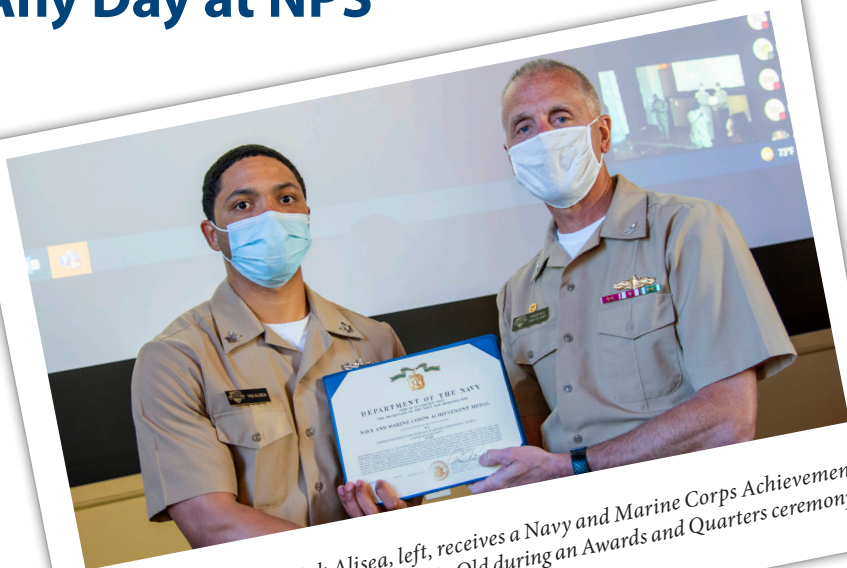
STUDENT voice

Hello, Peacocks!

Thanks for your tremendous support, comments, and recommendations during our Winter Survey. The President's Board for Student Affairs (PBSA) takes your feedback to make actionable steps to improve our quality of life on and off-campus. We are looking forward to hearing more from you in the coming weeks. Contact us through our [Student Recommendations Link](#) or email me directly at domonique.hittner@nps.edu.

Our general student body meeting will be on Thursday, 10 March 2022, from 1200-1240, on campus outside of the Dudley Library and on MS Teams. Please email pbsa@nps.edu for the virtual link. This month we are planning our NPS Commanders Cup, Discovery Day at NPS, and planning for graduation support. The whole team wishes you well as you are working towards your finals. Please feel free to reach out if you need any support. If you are interested in joining our team, please send us a note to pbsa@nps.edu. We have posted some current volunteer opportunities on our website for your convenience.

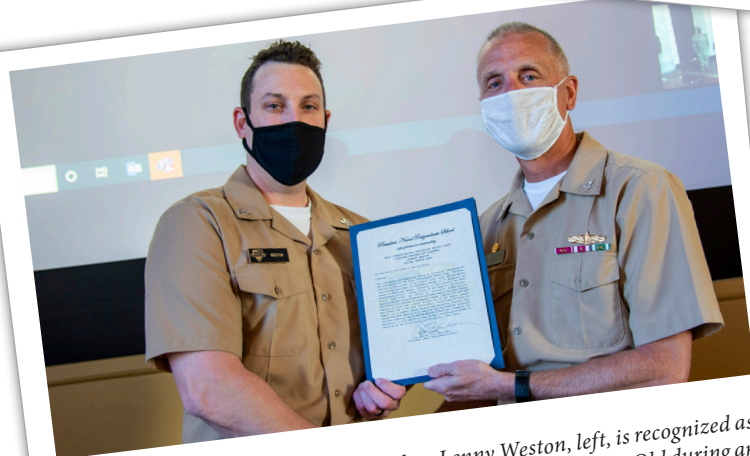
Domonique Hittner
Chair, Presidents Board for Student Affairs
<https://nps.edu/group/pbsa>



Yeoman 2nd Class Jeremiah Alisea, left, receives a Navy and Marine Corps Achievement Medal from NPS Chief of Staff Capt. Philip Old during an Awards and Quarters ceremony, Feb. 25. (U.S. Navy photo by MC2 Tom Tonthat)



Mass Communication Specialist 1st Class Nathan K. Serpico, left, is recognized as the Sailor of the Quarter by NPS Chief of Staff Capt. Philip Old during an Awards and Quarters ceremony, Feb. 25. (U.S. Navy photo by MC2 Tom Tonthat)



Mass Communication Specialist 2nd Class Lenny Weston, left, is recognized as the Junior Sailor of the Quarter by NPS Chief of Staff Capt. Philip Old during an Awards and Quarters ceremony, Feb. 25. (U.S. Navy photo by MC2 Tom Tonthat)

On campus this month

March 13 | 21

Reporting Date
13: International
21: U.S. Students



March 15

Winter Quarter Awards Ceremony



March 25

Winter Quarter Graduation Ceremony



Looking for the

FY23 Board Schedule?

FTS O-4 Staff Continuation PERS 8	1-Mar-22
Reserve E-8/9	7-Mar-22
FTS E-8/9	7-Mar-22
Reserve O-5 Line	8-Mar-22
FTS O-5 Line	8-Mar-22
FTS O-4 Line Continuation	8-Mar-22
Active Aviation Commander Command	14-Mar-22
Reserve/FTS Aviation Commander Command	14-Mar-22
NJROTC Officer	22-Mar-22
NJROTC Enlisted	22-Mar-22
Chaplain Corps Command Screen PERS	23-Mar-22
Active E-9	28-Mar-22
Active E-8	28-Mar-22

For more information on upcoming boards and the full schedule please visit:
<https://www.mynavyhr.navy.mil/Career-Management/Boards/>



Missing the camaraderie and conversation of the Trident Room?

We can help. We believe the Trident Room is an integral and well-known contributor to our NPS academic experience. Student-produced, this podcast is your new destination for illuminating, unfiltered conversation between student hosts and compelling guests.



TRIDENT ROOM PODCAST SERIES

Brewer of stout conversation. Unfiltered and on tap.
Join us online at nps.edu/tridentroompodcast or look for us on Apple Podcasts and Spotify starting July 29, 2020.

