Naval Postgraduate School Pins Three Sailors As Chief Petty Officers

By MC2 Tom Tonthat

For many decades, the Chief Petty Officer has stood as a symbol for strength, discipline and knowledge amongst the Navy’s enlisted ranks. The motto “Ask the Chief” has been ingrained in the minds of junior enlisted Sailors as a reminder to look to their chief for guidance. The selection to join this fellowship holds heavy significance and is a momentous career milestone.

The Naval Postgraduate School (NPS) held a hybrid chief petty officer (CPO) pinning ceremony for its three new chiefs, and the CPO selectees from the neighboring Information Warfare Training Command (IWTC) Monterey, inside King Auditorium, Nov. 19. The event was livestreamed for all who could not attend in person.

“As with anyone that is selected for chief, it is because the Navy saw that they were the best and fully qualified to handle the demanding job of a chief petty officer and to be the future leaders that the Navy needs.”

-Chief Electrician’s Mate John Manning, NPS’ Senior Enlisted Leader

“This milestone represents the culmination of years of hard work and sacrifice, never ending workdays, extended deployments, and long separations from loved ones,” said master of ceremonies Senior Chief Cryptologic Technician (Interpretive) Jason Noble, IWTC Operations Department Chief. “It is also a tribute to the unyielding support and understanding of spouses, friends and family. Without them, this day would not have been possible.”

At NPS, Chief Navy Counselor Joshua Garnsey, Chief Yeoman Lao Kue, and Chief Electronics Technician (Navigation) Andrew Reagan shared a variety of feelings upon hearing that they had been selected as chiefs.

“I was very surprised,” Reagan said about the moment he learned that he was selected for advancement. “I was prepared for either outcome, but did not want to get my hopes up. It took a few days to sink in, but I was very excited overall.”

“What I felt most initially was disbelief,” said Garnsey. “Having been board eligible a few times, I had not expected to be called into the Chief of Staff’s office and be congratulated. What I felt immediately after was excitement to call my stepmom and my dad and give them the news that they’ve been waiting a long time to hear. I think that was when it really hit me.”

To read the full story, please visit our website.
NPS Students Finish Strong, Take Top Honors in NavalX Challenge

By MC2 James Norket

A field of 200 participants from across the Navy stepped forward to be a force for innovation in the sea services through the NavalX Agility Summit Challenge, part of NavalX’s annual Agility Summit.

The Office of Naval Research (ONR) and NavalX partnered with the Naval Junior Officer Counsel (NJOC) to design and execute the 2021 Agility Summit Challenge, a two-month long sprint to crowsource innovative ideas from the deckplates in response to four key challenge areas directly supporting the Department of the Navy’s Unmanned Campaign Framework ... Operator Experience, Operator Training, Logistics Support, and Common Data Standards. Overall, the core purpose of this year’s challenge is to gather, present and refine ideas, methods and capabilities that will contribute to making unmanned systems a trusted and sustainable part of the Naval force.

As a hub of Naval research and innovation, with a community of naval officers/graduate students who understand fleet challenges and are actively researching innovative ways to solve them, it’s no wonder four of the six Agility Summit Challenge finalist teams were from the Naval Postgraduate School (NPS).

The final round of the NavalX Challenge was held Sept. 14-17, in person in Virginia and virtually around the Fleet, with the final presentations broadcast live via NavalX’s YouTube channel. These final few days were the culmination of a lot of hard work ... Two months of idea sourcing leading up to the live summit event where top challengers from the first stage participated in several pitch-developing rehearsals.

The event culminated in a final pitch presentation that was judged by a distinguished panel of future force leaders, including Dr. Rich Carlin, Office of Naval Research, Director of Naval Accelerator (Code 36); Rear Adm. William Byrne, Director of Warfighting Development (OPNAV N7B/72); Brig. Gen. Benjamin Watson, Commander of USMC Warfighting Laboratory and Vice Chief of Naval Research (VCNR); and, Mr. Craig Sawyer, Deputy Lead for the Naval Unmanned Campaign and S&T Advisor (ONR N9IZ).

Competitors from NPS included a team of computer science students, Lts. Christopher Britt and Andre Leon; a team of international students from Greece including Capt. Nikolaos Vidalis, Capt. Antonis Varvasoudis, and Capt. Georgios Andrianopoulus; and a student/faculty team featuring Lt. Cmdr. Christopher Knapp and Dr. Aurelio Monarrez.

When the dust settled, it was the fourth NPS team, a solo student force of one from the university’s mechanical engineering program, U.S. Navy Lt. Sam Royster, who took top honors in the Agility Summit Challenge competition. While pursuing his mechanical engineering degree, Royster’s focus on robotic controls and total ship systems engineering led his research toward developing a 21st century solution to marine biofouling management. He’s exploring innovative methods of cleaning algae and barnacles off ship hulls to make them more fuel efficient when underway, and reduce their maintenance burden during in-port periods.

It was this research that he pitched to the Logistics Support portion of the Agility Summit Challenge, which focused on using autonomy to ease the burden on supply chains.

“One of the most effective ways of easing that burden is to reduce the amount of supplies needed in the first place,” explained Royster. “Experts have estimated that a 10-20 percent increase in ship fuel efficiency could be achieved if hull fouling levels were kept to a minimum, which would facilitate an extension of underway replenishment timelines, easing the burden the fuel supply chain.”

Royster likened the challenge of marine biofouling to playing golf on a course that hasn’t been mowed in months. The longer you put it off, the worse it gets and the harder it is to get the course into playing shape.

“The same paradigm exists in the realm of hull husbandry,” he said. “If we changed the way we clean our ships so that it happens every week or two instead of once or twice a year, we could save fuel, reduce our environmental impact, and extend the useful life of our hull coatings by up to two years. This innovative hull husbandry CONOPS could be enabled by ‘Roomba-like’ autonomous underwater vehicles that remove marine biofouling when it is just a soft slime layer, and it could ultimately reduce the number of drydocks needed to support our growing and aging fleet, and free up our highly trained divers to perform more emergent repair and salvage work.”

Royster credits his thesis advisor, Dept. of Mechanical and Aerospace Engineering Research Asst. Professor Jake Didoszak, for helping him refine his research ideas into a cohesive and impactful project. Didoszak is a retired Surface Warfare Officer currently serving as an Engineering Duty Officer in the Naval Reserves. He completed his master and Ph.D. degrees at NPS and currently manages the university’s Total Ship Systems Engineering program.

As a result of his win and the subsequent research award of $100,000 to further pursue the work, Royster and Didoszak are currently exploring partnerships with the Naval Research Enterprise on appropriate next steps.

[Story continued on next page]
“There are some exciting possibilities to move autonomous hull husbandry and proactive grooming closer to a fleet reality with this funding,” Royster stated. “Professor Didoszak and I are looking at either conducting a proof of concept, temperature-based grooming frequency study that will build off of my thesis research, or working with a leader and existing ONR partner in the field of autonomous hull husbandry to further refine the vehicle and brush design to operate on unique U.S. Navy warship geometries and surfaces.”

“From the characterization of material performance in hull coatings exposed to varied ocean biome, to the modeling of mechanics involved in cleaning uniquely shaped hull surfaces, the marine environment brings many interesting interdisciplinary challenges,” added Didoszak. “This award provides further opportunities for NPS engineering students like Lt. Royster to team with leading researchers in further developing innovative concepts like his for the application of autonomy in tackling Navy relevant challenges such as those in ships husbandry.”

As a campus that supports and fosters innovative thought in its students, it’s no surprise that NPS had such a strong showing in the final round. Royster’s idea to utilize unmanned systems to eliminate biofouling did not begin with the NavalX Challenge. Rather, it began last fall in the university’s Innovation Leadership course taught by Dr. Peter Denning and retired Marine Corps Col. Todd Lyons. Royster also had the advantage of further refining this idea and his pitch by participating in NPS’ annual Big Ideas Exchange (BIX) this past Spring. The BIX is an annual event showcasing select innovative ideas of merit developed by university students as they explore critical issues within the sea services.

Royster actively credits the course, the coaching, and the BIX with putting him into a position of competitiveness to eventually win the NavalX Challenge championship.

“The course and BIX are having a high impact because we can produce leaders like Sam [Royster] who are making a difference for the Navy,” said Denning. “Many other graduates of our program have gone on to be innovation leaders as well …. In other words, not only is Sam making a big impact, NPS’ education program in innovation leadership is having a big impact by developing leaders like Sam across the DOD.”

Royster said the best part about NPS is the freedom it provides students to pursue solutions to key challenges they see in the operational Fleet.

“My experience at NPS has been great,” he said. “I’ve enjoyed the autonomy to pick my classes and focus on things that not only interest me but also make real improvements in the Navy … Coming here and being able to focus on my education for the last two years has been an awesome opportunity.”

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### NPS Marine Corps Student to Compete in National Judo Competition

**By Javier Chagoya**

Naval Postgraduate School (NPS) electrical engineering student U.S. Marine Corps Capt. Ben Branson has been practicing judo since the age of four. After 23 years of demanding study and perfecting his craft, he travelled to Irving, Texas to compete in the 2021 Team USA Judo National Presidents Cup Championships, Nov. 21.

It’s been a little over a decade since Branson won gold in the 2010 U.S. Junior Open Judo Championships in Fort Lauderdale, Fla., prior to joining the Marine Corps.

With two separate deployments to Afghanistan since joining the service, there was little time for Branson to practice, or find others at his level of knowledge and performance to practice with. Getting back into competition has been a long journey.

When he arrived at NPS, he quickly became a member of a local dojo, studying under Sensei Eddie Nakao, a master with 40 years of teaching in the discipline of judo and other martial arts. The two have become respected colleagues, as Branson now assists in teaching youngsters and teens technique at the dojo. He also found an opportunity to jump back into high-level competition.

“I competed for the first time in four years in May 2020 in Reno, Nevada, at the Senior Nationals. I went 2-2,” said Branson. “I’ll be looking forward to getting some rematches in at this next tournament to the guys I lost to.”

Branson’s work ethic and commitment to the sport was instilled in him by his father who is also a judo sensei, and will actually meet Branson at the competition where they’ll both compete in separate divisions.

U.S. Marine Corps Capt. Ben Branson, a student in NPS’ electrical engineering program, demonstrates the takedown of an opponent to judo students during a class at Dojo Bojuka Ryu in nearby Marina, Oct. 19. (U.S. Navy photo by Javier Chagoya)

“My father was a sensei growing up in Anderson, Indiana, and [judo] was very much a part of my life. Both of my parents were there to support me in all those matches, and I enjoyed traveling with the judo club and competing in tournaments with the family,” he said.

Though quiet and unassuming, Branson applies an impressive level of focus, discipline and commitment to his many priorities … family, the Marine Corps, graduate studies and the competition.

“It’s tough dividing time between family, master’s degree and trying to get ready, but for me getting ready and pushing myself will make me a better father and a better husband for my family,” he said. “I want my kids to see how hard their dad pushes himself so they have an example of what hard work can do for them someday.”
This past Summer, a Marine infantry officer and a cryptographer from the Naval Postgraduate School (NPS) journeyed to Marine Corps Base Camp Pendleton, California, where the I Marine Expeditionary Force (I MEF) was holding the Pacific Sentry 2021 field exercise. Their mission … to pilot an idea.

The team, consisting of NPS student U.S. Marine Corps Capt. Christian Thiessen and Dr. Britta Hale, an assistant professor in the NPS Department of Computer Science, would integrate with the I MEF team; in doing so, they would demonstrate how a two-week NPS embed could both dramatically increase shared awareness between NPS researchers and practitioners in the field and mitigate the persistent challenge of NPS students’ time spent away from the fleet for their studies.

Their pilot program, dubbed the NPS-Fleet Engagement Program, places NPS students and faculty "in situ" with operational units across the force with the ultimate goal of deepening awareness, trust and collaboration between the fleet and NPS.

"By visiting with Sailors and Marines aboard their ships or submarines, on the flight line or in the field, we ensure that NPS truly understands their challenges or shortfalls, and that we understand them in the context and reality of ongoing missions and operations," noted Col. Randy Pugh, Senior Marine Corps Representative and Associate Dean of Research at NPS. "Faculty-student teams conducting assessments or capturing statements of need at sea or in the field are highly-visible examples of NPS' commitment to providing exactly the education and applied research the fleet and fleet Marine forces need now as well as in the future."

The NPS-Fleet Engagement Program grew out of NPS’ existing “Industry Internship” program, which enables students to participate in a weeklong exchange with commercial and federal entities during each academic quarter’s Thesis Week.

While partnering with industry is extremely beneficial for students in gaining first-hand, topical insight into how commercial companies develop cutting-edge technologies and how they do business, Thiessen saw an opportunity to take this a step further. Expanding the concept, he thought, could also substantially meet emerging research needs of the Navy and Marine Corps’ principal stakeholders. At the same time, NPS students are provided an opportunity to refresh perishable operational experience while simultaneously examining challenges through a broader lens of identifying sustainable solutions for the fleet. For NPS faculty, it’s a rare chance to immerse themselves in a tactical operations setting that their students experience regularly.

"There’s a significant gap spent away from the fleet when we come to NPS," Thiessen explained. "For example, as a Marine officer, I have my two years here and then I have three years [through a utilization tour] at my next duty station. As a result, a lot of people are removed from their primary occupational specialty for anywhere from three to five years.

"The NPS-Fleet Engagement Program started as a way to address that challenge while giving students operational experience and to keep them tethered to the fleet while also sending a signal that NPS is conducting relevant research to address the operational problems that the fleet needs," Thiessen said.

When the subject came up in a conversation with a professor, Dr. Britta Hale, she also saw in it the potential to directly connect NPS researchers with the end users of the technologies NPS was researching.

Normally, a wide chasm separates the "research demand” and “research supply,” spanning a broad chain of program managers, military officers as well as industry executives and marketers before actually reaching the people who initially registered the need and who will ultimately use the technology.

"The NPS-Fleet Engagement Program can shortcut this entirely and close this gap," Hale said. "With it, you are taking researchers right to the problems and the very users who have them. We get to see directly what’s going on and it is often much more than what’s on the surface."
“In that respect, we can go straight to addressing the issue,” she continued. “So the ultimate goal then is that you get technology and new ideas that are extremely useful to the people who are the end users.”

This was precisely what the team accomplished at Pendleton.

Thiessen and Hale initially met up with I MEF’s recently established MEF Information Group, where they observed information warfare operations in practice. They then met with the Force Fire and Effects Coordination Center, the Marine Corps Tactical Systems Support Activity, 3rd Fleet, Navy Installations Command, the Naval Information Warfare Center – Pacific, as well as several industry representatives.

“We were all over the place in a few weeks, and it turned out to be a really great experience talking to people that I had no exposure to previously,” Thiessen said. “I’m an infantry officer by trade, and it’s a pretty well-defined profession because we’ve been doing it for a while now, so stepping into this role was really eye-opening. Information operations is a rapidly changing environment that the Marine Corps, the Navy and the entire DOD are still trying to define.”

“Once you see it in practice you can say ‘oh, that’s what you’re dealing with; we’ve got a solution for that,’” she said. “It’s not until you actually see that trouble point that you can address it that way. Perhaps all it takes is a small change to the program that could be solved in a couple of days with the researcher.”

Having eyes on the process enabled the team to identify potential snags and suggest solutions or even ways to improve the network, Hale noted.

A direct connection with forces in the field in this manner also has the potential to go a long way in keeping NPS students’ operational experience from “fading,” according to Thiessen. This directly meets the Marine Corps’ talent management goal set forth in the 38th Commandant’s Planning Guidance of retaining high-performance Marines, especially those that are “inclined to learn, think and innovate.”

To facilitate the program, the NPS-Fleet Engagement Program will be managed within the Naval Warfare Studies Institute (NWSI), with a Marine officer or senior non-commissioned officer formally detailed to serve as program coordinator.

“NPS is completely committed to supporting the development of concepts and capabilities that will ensure the Navy-Marine Corps team remains the most capable fighting force in the world,” Pugh said. “Through the NPS Fleet Engagement Program we will have regular and meaningful contact with the fleet and fleet Marine forces and we will be constantly alongside Marines and Sailors as they innovate and experiment with new ideas on how to fight and new weapons, systems, and networks with which to fight.”

“NPS is privileged to support front line units as they work to accomplish this difficult task,” he added.
Naval Postgraduate School (NPS) Financial Management Directorate (FMD) team member Paul Effinger passed away on October 20, at the age of 57. A memorial service celebrating Effinger’s life will be held at the NPS Chapel at 1 p.m. on Wednesday, Dec. 15.

Paul Effinger joined the NPS financial management team as an intern in June of 1989. For more than 32 years, the FMD team and its mission gave Paul a sense of purpose and joy. He took tremendous pride in his work and would call the people he worked with his family.

Paul absolutely loved hockey – he was one of San Jose Sharks’ biggest fans. He knew everything about the Sharks – their team and player stats, schedules and playoff records. Few knew that he was a huge Star Trek fan too, going to a few conventions to embrace his inner “Trekkie.” He loved to read both non-fiction and fiction spanning a wide range of genres. He also loved to build computer programs and databases. He built countless programs for the FMD team, but he also did it for fun. Paul had an old soul too. He loved old movies and TV series such as cowboy and detective shows. “The Fugitive” was a particular favorite.

When asked to share something about Paul, his closest friend in the FMD team, whom Paul called his “finance work wife,” shared that, “Paul had the most abstract sense of humor, but he had the biggest heart.”

We will miss Paul. The NPS and FMD teams were blessed to have had the privilege of serving with him.

WTI Scholars Program Sends First Cohort Back to the Fleet

Last year, the Naval Postgraduate School (NPS) launched a pilot program to take fleet Warfare Tactics Instructors (WTIs) and give them the academic theory behind those tactics to improve their warfighting capabilities. All four of the students graduated from the WTI Scholar program this summer and are taking their newfound knowledge back to the Fleet.

WTIs, pronounced “witties,” are a sub-group of officers trained by the Naval Surface and Mine Warfighting Development Center (SMWDC) to conduct advanced tactical training, doctrinal development, assessments of shipboard at-sea training, and serve in critical operational billets in one of four specialized areas – anti-submarine and surface warfare, amphibious warfare, mine warfare, and integrated air and missile defense warfare.

The idea of the WTI Scholars Program began when leaders from SMWDC saw a return on investment from officers in the WTI program who already had an NPS master’s degree or were earning their degrees through NPS’ varied distance learning programs.

One key educational challenge facing WTIs is that many of them had to forgo the opportunity to obtain graduate education due to the WTI career path constraints precluding in-residence educational tours. NPS stepped in and shortened certain curricula, allowing WTIs to obtain an accelerated master’s degree in order to get back to the fleet in a reasonable time to fill key billets. The price for this is the elimination of certain milestones that a full-length resident NPS curriculum typically provides, such as Joint Professional Military Education (JPME) Phase I certification and a subspecialty code, but the core master’s degree requirements are still met in all nine “WTI Scholars” offerings.

“This is an excellent opportunity for us to further our education in a way that benefits both us and the Navy,” said Navy Lt. Matt Mitchelmore, a graduate from NPS’ Graduate School of Defense Management. “We get to take certain topics that are related to our degree, but for the rest of the required credits, we got to take classes that interested us, like organizational behavior or leadership classes that will benefit the fleet in other unique ways.”

Navy Lt. Christopher Chavez, another student from the pilot program, said that the WTI Scholar Program was an excellent opportunity, and thinks that every Navy officer that is eligible and able to take this course should do just that.

“If I met anybody in the same situation as I was, I would tell them that it was a perfect opportunity,” said Chavez. “This program can give you the best of both worlds. You can get excellent, tangible knowledge, and then you can also get some time yourself to get a master’s in-residence at NPS. I couldn’t have asked for anything better.”
Happy Holidays, Peacocks!

Thank you for sharing your comments and feedback on our recent survey. The President’s Board for Student Affairs (PBSA) is an all-student volunteer organization that advises the NPS President and support staff, on topics affecting students, to enrich our experience. Our team of student-leaders serves as your communication bridge and actively seeks your feedback. All positive and negative recommendations are helpful, so contact us anytime. Feel free to submit your feedback, recommendations, concerns, or improvement suggestions to Student Recommendations Link or to me directly at domonique.hittner@nps.edu.

Our general student body meeting will be on Thursday, Dec. 9, from 1200-1240, on campus outside of the Dudley Library and on MS Teams. Please email pbsa@nps.edu for the virtual link. As usual, we will have donuts, and be ready to answer any questions you may have. Thursday will also be Ugly Holiday Sweater Day, so if you have a particularly festive holiday sweater, don’t forget it! Remember, ugly sweaters are great, but the sweaters cannot be inappropriate (obscene, offensive, etc).

Finally, to connect our community, on Thursday, Dec. 16 from 1100-1400, we will host a Holiday Connector Social. Come join us for this free event. We will have music, hot chocolate, holiday treats, and an opportunity for a holiday or yearbook photo with your friends, pets, or family. Registration details will soon be posted on the muster page. Our team looks forward to seeing you on campus and at our many, upcoming events. May your finals go smoothly!

Domonique Hittner, Chair, PBSA
https://nps.edu/group/pbsa
On campus this month

December 6-10
Center for Executive Education NSLS Workshop
Online

December 7
Defense Energy Seminar
ME Auditorium | 12:00 p.m.

December 17
Fall Quarter Graduation Ceremony
King Hall | 10:00 a.m.