



NPS Earns Max 10-Year Re-accreditation from WSCUC, Again

By MC3 James Norket

On March 3, the Western Association of Schools and Colleges Senior College and University Commission (WSCUC) reaffirmed the Naval Postgraduate School's (NPS) overall effectiveness by reaccrediting the university for the next ten years, the maximum a university can achieve.

As a deliverer of technological and intellectual advantage for American seapower, receiving the maximum 10-year accreditation demonstrates that NPS provides a top-tier education and learning environment to future leaders throughout the Navy, Marine Corps and beyond.

On the heels of the accreditation, affirming the results, NPS received high marks in the latest "U.S. News and World Report" graduate school rankings, released this week. Programs in Graduate Schools of Defense Management (GSDM) and Engineering and Applied Sciences (GSEAS) were recognized.

Ranked #1 in the specialty category of Homeland Security and Emergency Management, GSDM also ranked in the top 25 percent of graduate schools across the nation for public affairs and is accredited by the Network of Schools of Public Policy, Affairs and Administration (NASPAA). Also breaking the top 100, GSEAS engineering programs were ranked 93rd (five way tie) out of 221 total schools nationwide. Programs specifically mentioned include Aerospace/Aeronautical/Astronautical, Electrical and Systems Engineering.

According to NPS President retired Vice Adm. Ann E. Rondeau, NPS is the Navy's applied research university, which makes it a unique place among our nation's accredited universities.

"The one thing we do differently than anywhere else is solve complex defense problems leveraging the research-based, graduate education process. The WSCUC team was tremendously impressed at what they saw, heard and experienced about our university. They commended everyone's passion for the NPS mission and the academic advancement of students, and the distinctive and forward-looking education we provide our students through innovative programs of study and research."

-NPS President retired Vice Adm. Ann Rondeau

"With this re-accreditation, NPS will not just continue its unique mission, but advance its mission," continued Rondeau. "We will advance deeper into preparing technology leaders and solutions to Naval and national security problems. NPS is a very special place to learn, teach and work, and we will continue to fulfill the Navy's mandate and our own vision of being the finest graduate institution available to our military men and women and DoD partners."

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

NAVAL POSTGRADUATE SCHOOL

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Dr. Scott S. Gartner Takes the Helm as NPS' 16th Provost & Academic Dean

By MC2 Tom Tonthat

The Naval Postgraduate School (NPS) and its community of students, faculty and staff welcomed Dr. Scott Sigmund Gartner to campus as he officially assumed the position of Provost and Academic Dean, March 1. Gartner, a political scientist and expert in international security, comes to NPS from Penn State University where he served as director of the Penn State School of International Affairs and was Professor of International Affairs, Law, Engineering Systems and Political Science.

Gartner is no stranger to NPS or its unique mission of defense-focused graduate education and research. As a visiting professor and instructor at NPS, he taught and advised students on critical geo-political topics, but this experience also created a gravity to the university's mission that drew him back to NPS.

"I can't think of a mission that's more important than educating our officers, particularly our Naval officers," said Gartner. "Naval officers need to make decisions independently and rapidly, with the security of our nation and their Sailors in mind. I can't imagine a more important impact on the force.

"NPS serves as an interdisciplinary bridge between the academic and applied worlds in a way that uniquely supports the Navy and Joint Force," he continued. "What I think interested me most in 2014-15 was the amazing people and sense of community here. The people were really the strongest draw for me, and I feel very privileged to be a part of NPS."

As Provost, Gartner believes NPS is a vital research resource for the DOD as it bridges both STEM and non-STEM disciplines. Students at NPS have the ability to fulfill core coursework in their technical disciplines, but then also have the opportunity to understand the strategic context of what they learn, he explained. And it works both ways, with non-STEM disciplines understanding the technical side as well, he added.

Gartner says he would prefer to be familiarizing himself with the university campus and community as it would ordinarily operate. Although that's difficult during the COVID environment, it does not mean he's not accessible.

"It's real important to me that everyone at NPS has a voice; that they understand not just what they're involved in, but the larger efforts that we're trying to achieve, and how what they're doing fits," said Gartner. "I want to hear all ideas, so it's really important to me that I am considered the Provost for all faculty, students, staff AND alumni."

Gartner has already started putting his thoughts and ideas into practice, expanding opportunities for student input and thinking about how alumni engage with NPS following graduation.

"The student voice is very important to me and I'd like to see us expand it," said Gartner. "I'm already working to put students on committees. I'm also in discussions with the NPS President and the Alumni Association and Foundation about how we can support our alums after they leave. We should think of our students as both lifelong learners and lifelong teachers. We have a lot to learn from them, and I think they have more to learn from NPS after they graduate too."

A lifelong learner himself, Gartner says he has been focused on exploring different perspectives on leadership through his current readings. He's been inspired recently by learning more of Eisenhower's leadership in World War II; the visionary abilities of tech giants like the late Steve Jobs; and those who struggled to be allowed to lead, such as the three black women mathematicians at NASA, portrayed in the movie "Hidden Figures" based on the book by Margot Lee Shetterly, who played a major role in getting America into space. All unique and different in their approach and execution of leadership, he noted, with a common theme of encouraging others to be agents of change.

For himself, Gartner prioritizes a philosophy of leadership by example and inclusion, and says he has every intent of working right alongside his peers.

"I haven't given up being a faculty member, both in terms of my perspective and the university," said Gartner (who is a tenured faculty member in Defense Analysis). "I'm still trying to achieve research. I have two university press books coming out this year, one on wartime decision making and the other on great power dynamics, and I'm working on articles applying AI to terrorism and looking at suicide in the military. I'd like to think of myself as an active researcher and I'm hoping once I get a year or so of provost under my belt to also be an active teacher and spend some time in the classroom."

Gartner recognizes that he has joined the university at a time of potential instability and change, between COVID, potential flux in higher education, and budget pressure from the Pentagon. But, he says, he places a very high priority on listening to the NPS community and he welcomes any and all perspectives and feedback.

Gartner received his undergraduate and master's degrees in history and international relations, respectively, from the University of Chicago, and a master's and doctorate in political science from the University of Michigan. He is married to Dr. Diane Felmlee, a Distinguished Professor at Penn State, and he has two daughters who live in the San Francisco Bay Area. Gartner's hobbies include hiking, biking, music and reading.

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



The NPS community welcomed Dr. Scott Sigmund Gartner to campus as he officially assumed the position of Provost and Academic Dean, March 1. (U.S. Navy photo by Javier Chagoya)

Navy, NPS Leaders Congratulate Winter Quarter Grads, Virtually

By MC3 Lenny Weston

Acknowledging the exemplary achievements of a new graduating class amidst many challenges, the Naval Postgraduate School (NPS) commemorated its Winter Quarter graduates virtually, Mar. 26. The new NPS alumni overcame many arduous challenges in the COVID environment, swiftly adapting to remote learning in early 2020, demonstrating personal and professional commitment to completing the rigorous academics and research required by their programs.

In commencement remarks recorded prior to graduation day, Joint Staff Director for Strategy Plans and Policy Vice Adm. Lisa Franchetti congratulated the 276 graduates, including eight international students from six countries, highlighting that the creative professionals developed at NPS take today's uncertainty and transform it to future strategy.

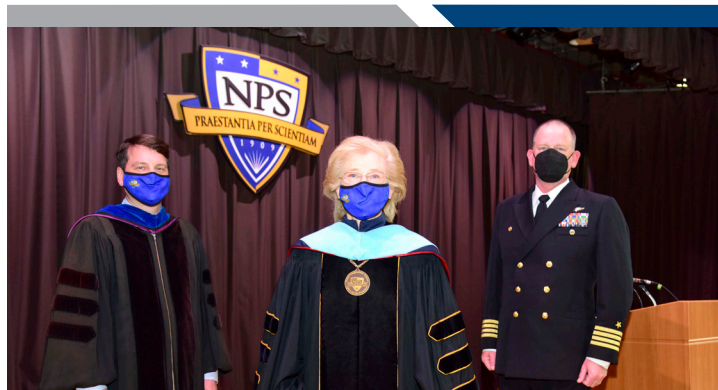
"I know how hard it is to complete these academics while balancing all other aspects of your life made even more difficult by the pandemic," said Franchetti. "Thank you for making this effort. You and our joint force will be better and stronger because of it as this chapter of learning comes to an end."

For the new university alumni, she referenced a paraphrased comment from Oliver Wendell Holmes Sr., who once said, "Every now and then a person's mind is stretched by a new idea and it never shrinks back to its former dimension."

Franchetti encouraged the new graduates to expand on what they have learned and apply it to the coming assignments.

"Continue to take the time to read, study and build on what you have learned. For us to have what it takes to win in the future, we need you to do just that," she said.

In a pre-recorded graduation ceremony NPS President retired Vice Adm. Ann E. Rondeau praised the graduates on their outstanding achievements throughout this past year during which they persevered and performed, creating new ideas that will provide solutions for our nation.



In a new graduation tradition, Naval Postgraduate School President retired Vice Adm. Ann E. Rondeau, center, former Acting Provost Dr. Robert F. Dell, left, and Dean of Students Navy Capt. Markus J. Gudmundsson pre-record their remarks in King Hall, March 10. (U.S. Navy photo by Javier Chagoya)

"The accomplishments that we celebrate today have empowered you to be the leaders, to champion the solutions and innovations that will overcome the challenges; that will answer the problems; and that will develop and create solutions," said Rondeau. "Take pride, but also take with you the new knowledge as your new rucksack of intellectual power in this age that will require a speed of decision making with accuracy and precision like no other time."

NPS' Dean of Students Capt. Markus J. Gudmundsson echoed Franchetti in that boosting education is a necessity in today's military.

"Your graduation from this university represents a critical investment in you and in our armed forces," he said. "Your abilities and the research and scholarship you've contributed represent our future advantage in this era of great power competition. Our investment in you, is in good hands."

For more information on the Winter Quarter class, visit the [NPS Graduation website](#).



Cmdr. David Reid Lewis, center, receives his Ph.D. during a hooding ceremony with his dissertation advisor Professor Timour Radko, left, and Oceanography department Chair Distinguished Professor Peter Chu, right. (U.S. Navy photo by Javier Chagoya)



NPS Lecturer Mitchell McCarthy receives his Ph.D. during a hooding ceremony with his dissertation advisor, NPS Defense Analysis Associate Professor Timothy Camber Warren and Acting Dean of the Graduate School of Operational and Information Sciences Professor Dan Boger. (U.S. Navy photo by Javier Chagoya)

President Rondeau Initiates “Ask Me Anything” Sessions to Talk All Things NPS

By MC2 Tom Tonthat

In an effort to speak directly to the campus to offer updates and talk about current issues, Naval Postgraduate School (NPS) President retired Vice Adm. Ann Rondeau initiated her first [Ask Me Anything \(AMA\)](#) session, Mar. 4, talking about her NPS President’s 2021 Intent and taking questions on a variety of topics including the strategic plan, academic competition and keeping applied research relevant.

Rondeau said that she enjoys listening to the students tell her their stories or when faculty members stop by to talk about their work and classes, but she can’t talk to people in-person as much due to the COVID environment.

“I miss that,” she noted. “I thought I would try this Ask Me Anything session to be able to engage with you in the best way that we can.” Rondeau scheduled two AMA sessions a month to answer questions from the NPS community.

Faculty and staff asked questions regarding how to keep NPS’ applied research relevant to the DoD, and what major changes would she like to see come out in the new strategic plan to accomplish her 2021 Intent message.

Rondeau cited the [CNO’s NAVPLAN 2021](#) and the [Commandant of the Marine Corps Force Design 2030](#) guidance as reference points to see where NPS fits and where it can put its best work forward.

“We will look at all of those priorities and see where we fit and find our best niche and our best wheelhouse for the excellence that describes us,” said Rondeau. “I see us in many ways going deeper and wider. I see us being known in a high pedigree for the kinds of work that is unique and distinctive to us. We should not be doing work that somebody else can do equally as well or better. We need to do the work that only we can do with our students and their extraordinary experience to create solutions for the faculty who work hand in glove with them to bring forth science and technology that can affect the country and applied work that can make and create opportunities for the Navy, Marine Corps, and all the other services.”

Some people expressed concern about the perception that other schools like the Massachusetts Institute of Technology (MIT) or Carnegie Mellon University (CMU) could be better potential partners for sponsors than NPS.

“That’s the world of competition,” Rondeau responded. “We need to be able to get in there to compete and show the value of what we do. We’ve got to show what we do and how it transfers into things.” She used NPS’ installation of the first Xerox ElemX 3D Liquid Metal Printer as an example of the school gaining attention as a valuable resource for research, test and evaluation.

New NPS Provost and Academic Dean Dr. Scott Gartner joined the event from the road on his way to California.

“This is research that’s interdisciplinary and relevant, and that’s what we’re good at,” added Gartner. “We have to ensure that we have the structure and incentives that support. CMU, for example, is very good at that, so there is that competition that President Rondeau is talking about. But work that is interdisciplinary and is relevant to



NPS President retired Vice Adm. Ann Rondeau held her first virtual Ask Me Anything (AMA) session for university faculty, staff and students. Among the many questions, Rondeau welcomed new NPS Provost and Academic Dean Dr. Scott Gartner to participate in the event while on his way to California from Penn State University. (Graphic by NPS Office of University Communications)

the Navy is less common. Most schools aren’t so good at that, and I think that’s really NPS’ wheelhouse. Figuring out what avenues within that general domain ... is something special for NPS and should be part of our brand as opposed to work that’s neither interdisciplinary or not relevant, which could be done at a standard kind of civilian institution.”

Rondeau went on to stress that NPS can be further set apart due to the ability to do classified research.

“We do classified work and we’re responsive to requirements,” noted Rondeau. “We innovate towards capability and towards outcomes. We don’t have students whose governments are working against us within our student body. We need to do more classified work because that will be distinctive for us. That’s work that we can do really well and we have access to all of the classified references that are important to the Navy, Marine Corps, and the other branches.”

During her second AMA session, Mar. 18, Rondeau gave feedback on ideas to expand NPS’ efforts into applied research to attract or develop more subject matter experts (SMEs) and enhance the quality of education.

“I’m of the view that not only hiring SMEs, but also further developing the faculty from once they arrive at NPS, as well as exposing the faculty to our core client by having them at sea in some capacity when the opportunities are available,” said Rondeau, adding that the Naval Academy may hold a distance learning summer training in lieu of ship visits. “To make our faculty distinctive and distinguished in their experiences in orientation and insights so that they’re not only SMEs in their field of study, but also SMEs in the nation as a scholar who has been to sea and has seen some things.”

With nearly a dozen questions during each session, Rondeau plans to keep engaging the NPS campus directly every other week through these AMA sessions.

NPS Announces the Graduate School of International and Defense Studies

By MC2 Taylor Vencill

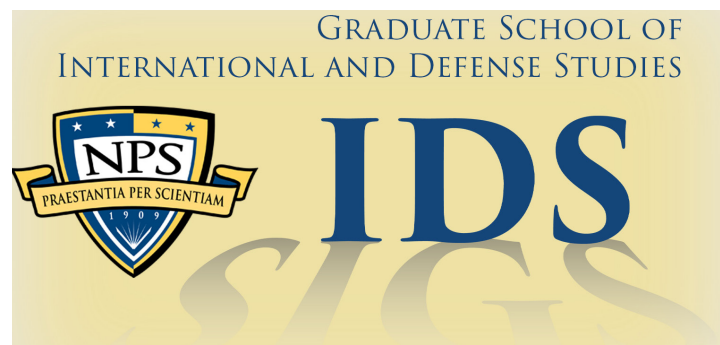
The Naval Postgraduate School's (NPS) School of International Graduate Studies (SIGS) has officially changed its name to the Graduate School of International and Defense Studies (IDS), effective Apr. 1, to better reflect the international and national security dimensions of their curricula and the school's focus on defense-related research and education.

The newly-renamed IDS is comprised of the National Security Affairs Department, the International Graduate Programs Office, the Institute for Security Cooperation support, and the Center for Homeland Defense and Security.

"We are not simply another 'international relations' graduate school," noted IDS Dean Dr. James Moltz. "Instead, we are a security-focused educational institution with unique expertise in such topics as Great Power Competition, homeland security, and regional security affairs."

The name change should help the school better communicate its unique mission of defense studies, NPS officials said, while remaining relevant and appropriate to its current students.

"NPS has a long history of providing outstanding graduate education in internationally-relevant defense topics that profoundly impact our understanding of great power strategic dynamics," said Dr. Scott Sigmund Gartner, NPS Provost and Academic Dean. "This change of name to the Graduate School of International and Defense Studies reflects a more accurate title for the school whose mission is to provide for the research and education needs for military officers of our allies and partners."



The graduate school's mission will remain the same, which is to "Provide high-quality graduate education and conduct research programs focused on international relations and regional security to meet the needs of the nation and our international partners, and to build partnership capacity."

Moving forward, IDS will be looking to develop new partnerships on campus as well as with various combatant commands, including the United States Strategic Command, to bolster the school's offerings in the areas of strategy and Great Power Competition (GPC).

"With the name change, IDS looks to further the mission of NPS," said Gartner. "This adds to the goal of competing in Great Power Competition and further strengthening our relationships with our partners, making NPS a clear leader in defense education."

Panetta Offers Beltway Perspective on Budget Policy During Guest Lecture

By MC3 Lenny Weston

Rep. Jimmy Panetta of California's 20th Congressional District offered an insider's perspective on national budget policy during a virtual guest lecture for university students in the Defense Budget and Financial Management Policy course at the Naval Postgraduate School, Mar. 22. Now in its fourth year, Panetta's guest lecture provides students with key insights about policy decisions and processes from a local leader with direct experience in these processes at the national level.

During the discussion, Panetta expressed how there is more to legislation than voting on bills. It starts with discussions and the need to build both personal relationships and professional relationships.

"Based on my past with caucuses, we've been able at least talk through issues and have an understanding of why members vote the way they do," said Panetta. "It's those types of discussions that provide a foundational understanding between members, and that helps build and support relationships."

"It's easy to get stuck in our trenches and use that as an excuse for continued trench warfare," he continued. "If you do that, then breakdowns in Congress can occur. Ultimately, it's those personal relationships that allow us to build our professional relationships."

Panetta gave his view on budget and policy change and how it is approached in Congress. He spoke on the monumental challenge of the COVID pandemic, on immigration policy, and on bipartisanship as well.

"Ideally, I'd love to see it bipartisan," said Panetta. "I'd love everybody to have skin in the game, but I think there is an attitude in the administration that we've got to focus on progress, not necessarily process at this point."

"NPS is a vital defense research and education capability for the Navy and the nation," noted Panetta. "I enjoy taking advantage of the opportunities to engage our military students, and I look forward to the possibilities ahead for them and for NPS."

Panetta expressed that the Monterey Peninsula is home to a hub of higher education for national security.

"NPS is a vital defense research and education capability for the Navy and the nation," noted Panetta. "I enjoy taking advantage of the opportunities to engage our military students, and I look forward to the possibilities ahead for them and for NPS."

NRWG 21 Builds on Success as Virtual Event – Register Now!

By Lois Hazard, NRP Integration Lead



NPS continues to apply the university's cutting-edge research capabilities in direct support of Navy, Marine Corps challenges through the Naval Research Program (NRP). The pinnacle event of the NRP, the Naval Research Working Group, will be held virtually April 20-22 and is now open for registration.

The Naval Postgraduate School (NPS) continues to showcase its exceptional research capacity via the next Naval Research Working Group (NRWG), April 20-22, 2021. Per continued COVID-19 guidance, this year's NRWG 21 will be executed as an entirely virtual event.

The NRWG is organized by the NPS Naval Research Program (NRP) and serves as a Chief of Naval Operations funded launch-point for new initiatives, which posture naval forces to meet current and future operational challenges. Through research, NPS' world-class faculty and students deliver cutting-edge solutions to some of the most pressing challenges faced by operational naval forces across the globe.

Now in its 9th year, the NRWG continues to serve as the primary synchronization and collaboration event bringing together fleet topic sponsors, NPS faculty members, and students to communicate, review, validate and recommend topics for NPS research.

Numerous Department of the Navy (DON) Topic Sponsor Organizations are expected to participate in NRWG 21. Funding for FY22 is \$11.54 million. In its nine-year history, the NRWG process has generated over 2,500 topics submitted through the NRP Topic Portal, with more than 500 research projects completed or in progress.

In this virtual environment, Research Topic Sponsors will have opportunities to discuss research opportunities, the benefit(s) to the naval services, and expected deliverables from selected NRP research projects via Breakout Sessions which are to be scheduled independently for individual NPS faculty and students.

NRWG 21 activities facilitated by the NRP will be interspersed over all three days of this annual event. NRWG 21 will again feature virtual Engagement Sessions, NPS Lab Tours/Capabilities Briefs, Moderated Panel Sessions, and the ever popular Social & Research Poster Session.

As part of the overall event schedule, virtual Engagement Sessions will

continue to serve as a forum for Topic Sponsors to brief their topics, providing NPS faculty and students the opportunity to engage in a greater in-depth discussion of topic details.

NPS Virtual Lab Tours/Capabilities Briefs remain an integral part of the NRWG. At least 14 different labs will be featured in total. Virtual Lab Tours are the perfect opportunity for Topic Sponsors to gain a more in-depth understanding of specific research lab capabilities at NPS.

Back by popular demand are moderated Panel Sessions for Topic Sponsors, faculty, and/or NPS students, designed this year to discuss key institutional priorities in the areas of artificial intelligence, cyber, great power competition, human-machine teaming and innovation. Panel discussion will stimulate cross-disciplinary interactions and collaboration within NPS and among topic sponsors.

The virtual Social and Research Poster Session expands on information gathered during the Lab Tours and is primarily an opportunity for our many Topic Sponsors to gain a better understanding of the breadth and depth of the research taking place at NPS.

The NRWG will again use Whova, a free mobile application, to support participation. Whova allows participants to explore professional profiles of event speakers and attendees; send in-app messages and exchange contact info; network and find attendees with common affiliations, education and shared networks; access the event schedule to plan the agenda; and, receive updates from the organizers, among others. Microsoft Teams will also be employed as a delivery method and for session presenter/participant interaction.

Review NRWG 21 event/track details, register for the event, and download the Whova app all at the [NRP website](#). Join the conversation with the NRP online at [@NPS_NRP on Twitter](#).

NPS Military Professor Selected for Prestigious Fulbright Scholar Program

By MC2 Tom Tonthat

U.S. Navy Cmdr. Thor Martinsen, an applied mathematics professor, has become the first Naval Postgraduate School (NPS) Permanent Military Professor (PMP) to receive a Fulbright U.S. Scholar award that will allow him to visit the University of Bergen (UiB) in Norway and collaborate on research during the 2021-2022 academic year.

With the Fulbright Scholarship, which provides opportunities for U.S. academics to teach, research or do projects abroad, Martinsen will collaborate with UiB faculty and carry out research on the properties of Boolean functions used in cryptographic algorithms. Martinsen said that understanding Boolean function properties and behaviors will help to build secure cryptographic systems.

Martinsen credits his years as a Naval officer for helping him stand out in the Fulbright U.S. Scholar selection process.

“[The University of Bergen] has a secure communications research center, focused on research similar to the type of work I do at NPS,” said Martinsen. Prior to becoming a PMP, I was a Navy Cryptologic Warfare Officer who did information warfare, cryptography, and things of that nature. I bring to the table not only the theoretical stuff, but practical experience.

“I will use this experience along with my doctoral education and research expertise to team with our Norwegian allies and help conduct important cyber security research,” he continued. “I think part of the reasons my application was so successful, was that I bring some of that operational knowledge to the forefront.”

In addition to research, the Fulbright Scholarship is an opportunity for Martinsen to extend diplomacy to Norway through the sharing of knowledge.

“The Fulbright is a cultural exchange program,” said Martinsen. “On the cyber security side, it’s important that we help our allies out and it’s a team fight. [NPS] is an international campus of sorts, and we have lots of allies here, so this [Fulbright] goes further to extend that relationship with Norway. Even though I go as a Fulbright, I’m also working on an opportunity through the Navy Engineers and Scientists Exchange Program

where a Norwegian scientist can potentially visit NPS for an extended period of time and collaborate with us on research.”

Martinsen noted that he is not just going to Norway as a researcher representing NPS, but he is going as an ambassador for the United States.

“Extending the reach and being an ambassador to show some of the things we do is what’s really important,” said Martinsen. “That’s why I’m very pleased to get this opportunity to showcase NPS. Not many folks get this opportunity through Fulbright. Whenever we can showcase NPS and demonstrate the quality of our faculty, it helps NPS. I’m very fortunate to have that opportunity.”

Martinsen’s Fulbright U.S. Scholar award recognizes not only his accomplishments, but also NPS’ ability to provide quality graduate level education.

“This represents so many things that are critical to NPS,” said Dr. Scott Gartner, NPS Provost and Academic Dean. “One is our commitment to excellence that is recognized globally. Fulbright Scholarships are an outstanding achievement. His permanent military factor reflects a second item aspect that I think is really critical for us, which is that we have military and civilian faculty working together to reach our primary military and civilian students. I think it’s a win-win in terms of both of NPS’ excellence and in demonstrating that military faculty can achieve national recognition for their contribution to knowledge.”



U.S. Navy Cmdr. Thor Martinsen is the first NPS Permanent Military Professor to be selected for the Fulbright Scholarship Award, where he will conduct cryptography research at the University of Bergen in Norway during the 2021-2022 academic year. (Courtesy Photo)

CAMPUS news & notes

The following is a short selection from the list of students recognized as winners of the Winter Quarter 2020 NPS Awards:

- **Monterey Peninsula Council of the Navy League LCDR Tom Winant Highest Academic Achievement Award:** Maj Kevin Druffel-Rodriguez, USMC
- **Naval Postgraduate School Superior Service Award:** Maj Celestine K. Lukshis, USAF
- **The John McReynolds Wozencraft Electrical and Computer Engineering Academic Honor Award:** ME5 Yu Kheng Denny Cheng, Republic of Singapore Navy
- **The Surface Navy Association’s Award for Excellence in Surface Warfare Research:** LT Daniel Pulliam, USN
- **Chief of Naval Operations Award for Excellence in Operations Research:** LCDR Christopher Norman, USN
- **The Curtis H. “Butch” Straub Achievement Award:** Chief Martin Birkenfeld, Jr., Amarillo Police Department; Texas
- **The Louis D. Liskin Award for Excellence in Regional Security Studies:** Maj Lyndsey L. Horn, USAF
- **Rear Admiral Grace Murray Hopper Computer Science Award:** LCDR Eric Regnier, USN
- **Chief of Naval Personnel Award for Academic Excellence in Manpower Systems Analysis:** LCDR Kevan Mellendick, USN and Capt Brandon Eliason, USMC
- **Naval Sea Systems Command Award in Naval/Mechanical Engineering:** LT Jeffrey C. Mitchell, USN

See full list of awardees [here](#).

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

Hybrid JIFX Leverages Virtual, Field Experimentation for Record-Setting Event

By MC3 Lenny Weston

For nearly 20 years, the Naval Postgraduate School's Joint Interagency Field Experimentation (JIFX) program has hosted quarterly in person experimentation events at the NPS Field Lab located at Camp Roberts, California. The events fostered collaboration between military, commercial industry and academia to experiment with and evaluate emerging technologies.

In response to the COVID-19 pandemic, the JIFX team led by Dr. Raymond Buettner, NPS Associate Professor of Information Sciences, facilitated a shift to a completely virtual format, like countless organizations committed to their mission were required to do. And there were advantages to the approach that extended the reach and the value of the event.

Demonstrating the team's adaptability, the latest JIFX 21-2 event was completed as a hybrid event bringing together a nationally-distributed audience virtually to exchange insights on emerging technology, and participate in a live collaborative experiment with the exchange of critical data and imagery in real time.

A total of 325 participants representing 208 unique government agencies, military commands, and private companies were able to showcase their latest technologies, and in some cases test and evaluate them either in simulation or live on location at the NPS Field Lab at Camp Roberts with ground and airspace availability.

According to Buettner, the ready accessibility of the virtual format garnered JIFX 21-2 the largest span of participants a JIFX event has ever had. The silver lining to operating in a virtual environment was that participants who normally could not make the event physically were able to join online to make virtual presentations, have detailed conversations and be involved in the virtual Technology Exposition (TechExpo) portion of JIFX, which is all about evaluating potential new or improved capabilities for the warfighter.

JIFX Deputy Director Michael Richardson noted, "Our goal is to continue refining our capabilities to host hybrid events in the future where the central focus will be live, in person, experimentation at our field laboratories, which facilitates great collaboration between the experimenters, while also linking those activities with other research, commercial, and military audiences through the virtual capabilities we have proven over the last year."

The online events, included the TechExpo, consisted of demonstrations on, and in-depth conversations about, emerging technologies. During the TechExpo, companies discussed and demonstrated projects such as an augmented reality (AR) contact lens that could potentially allow the warfighter to have an overlay of pertinent information over the real world without obstructing vision, while another company presented a new mask with the potential to provide enhanced filtration for viruses and bacteria.

A major line of experimentation for JIFX is Unmanned Vehicles and Autonomous Systems (UVAS). For JIFX 21-2, the co-directors of the Navy's UVAS Working Group spoke to the government representative. Leading that discussion was Reid McAllister, Director of Integrate Maritime Mobility Systems at Naval Surface Warfare Center Carderock Division.

"Our membership is supporting nearly every unmanned product that the naval forces have in their pipeline," said McAllister. "We have subject matter expertise from NAVAIR, Naval Sea Systems Command and certainly Naval Information Warfare Systems commands. The partnership with Naval Postgraduate School, and Sea Land Air Military Research Initiative (SLAMR) has been highly effective. Ultimately, what we're trying to do is align [participants] with the national and naval force's strategic objectives.

"NPS is really helping us out is when you start getting into that private industry and academia and the outreach that they greatly afford us," he noted.

McAllister further noted this enterprise accelerates the delivery of new capabilities to the warfighter while fostering a one-team collaboration effort incorporating high-velocity learning principles.

While the virtual events were ongoing, creative minds like NPS researcher Aurelio Monarrez and student U.S. Marine Corps Capt. Luke Klena, were conducting live experimentation at the NPS Field Laboratory. Their work in the field involved mitigation of Radio Frequency (RF) in combat scenarios with the help of the Joint Vulnerability Assessment Branch (JVAB), a mainstay at JIFX that assesses and identifies security vulnerabilities in RF and computer networks.

"JIFX provides students unique and relevant research [oriented] for warfighters, and its relevancy comes from industry, DOD and warfighters all out here together at a low-cost barrier," said Monarrez.

The technological experiments in the field are in an early enough stage, Monarrez added, that the researchers and students can provide feedback to the agencies and companies fielding the technology for potential modifications.

"The JIFX environment not only maximizes discovery but it enables the development of solutions," said Buettner. "Along the way JIFX creates a unique, militarily relevant environment for educating future leaders regarding not only emerging technologies but the human processes and networks that lead to success."



A team of students conduct experimentation at the NPS Field Lab in South Monterey County during JIFX 21-2, where access to airspace at McMillan Airfield is a critical asset for NPS researchers. The hybrid event resulted in a record-level of participation, combining traditional field experimentation with virtual engagements. (U.S. Navy photo by Javier Chagoya)

Sergeant Major of the Marine Corps Visits NPS to Discuss Enlisted Education

By MC3 James Norket

Seeking ways to provide more educational opportunities for senior enlisted Marines, Sgt. Maj. of the U.S. Marine Corps Troy E. Black explored options and possibilities with faculty and students at the Naval Postgraduate School (NPS) during a visit to the campus, March 9.

In the Great Power Competition environment, all branches of the Department of Defense are looking for ways to get an edge over our adversaries, and the Marine Corps believes a more educated enlisted force could do just that.

“Throughout history, the United States military has always rose to the challenges that we have faced,” said Black. “And in today’s world, we have to find a way to make everyone from the freshest private to the oldest general ready for whatever comes next.”

Currently, there are 245 Marines enrolled in 22 different curricula at NPS ... Nine of these students are enlisted.

“We need to invest more in our enlisted community,” said U.S. Marine Corps Col. Randy Pugh, the Senior Marine Representative at NPS. “We need to take advantage of the courses that NPS offers to enlisted members. The infrastructure is there already, we just need to capitalize on it.”

Black describes a Marine as constantly being in a perpetual state of deployment. They either are preparing to deploy, are currently deployed, or are just back from a deployment. He says the Marine Corps needs opportunities that let enlisted Marines take courses at different times and eventually earn a degree rather than being sent to a university somewhere for multiple years. “Enlisted education is a career-long process,” he said.

NPS follows a more traditional approach to graduate education. Students attend the university for a defined period of time and are sent back to the fleet and force to apply their knowledge. With time restrictions, that is not always possible. NPS President retired Vice Adm. Ann Rondeau is prepared to tackle that challenge.

“We are not restricted,” said Rondeau. “We have the capacity and would be excited to help the Corps in any way we can. We are in this together, shoulder to shoulder, and we will do whatever we can to maximize the warfighting capability of the Marine Corps.”

Master Sgt. Travis Hollingshead, a student pursuing a degree in Applied Cyberspace Operations, believes that NPS is a great option for enlisted Marines.

“It has provided me with an opportunity to expand my already existing experience and expertise in the field by giving me new and emerging challenges to tackle with research,” said Hollingshead.



Naval Postgraduate School President retired Vice Adm. Ann Rondeau, left, greets Sgt. Maj. of the Marine Corps Troy E. Black, second from right, during his visit to the campus to speak to NPS and Marine senior leaders to explore educational options and possibilities for enlisted Marines. (U.S. Navy photo by MC3 James Norket)

“We need all the Marines to be critical and creative thinkers and problem solvers going forward,” said Pugh. “I think that it begins with education, and education never stops. So, once you’ve got what you can at the bachelor’s level, then you need to go and do graduate education. And when you mix that in with hands-on learning through research, that’s really where it starts to gel. Then you get people that can solve just about any problem that gets thrown in front of them, whether they’ve seen it before or not.”



Sgt. Maj. of the Marine Corps Troy E. Black tours Naval Postgraduate School’s Center for Autonomous Vehicle Research (CAVR) laboratory, located in Monterey, Calif., March 9. (U.S. Navy photo by Javier Chagoya)

New CRADA between NPS and BNNano to Research Nanomaterial Applications

By MC2 Tom Tonthat

Coupling applied research with defense-focused education, the Naval Postgraduate School (NPS) has entered into a Cooperative Research and Development Agreement (CRADA) with BNNano, an advanced manufacturing company known for producing revolutionary Boron Nitride Nanotubes, to test and evaluate Boron Nitride nanomaterials for potential defense applications.

Boron Nitride Nanotubes are a revolutionary nanomaterial that exhibits a desirable combination of exceptional physical and chemical properties to include high thermal conductivity, electrical resistivity, superhydrophobicity and high thermal stability, strength and stiffness. Applications may include electric insulation, fire retardants, radiation shielding, metal lightning, and corrosion resistance.

The CRADA will allow faculty and students from NPS' Mechanical and Aerospace Engineering (MAE) Department to test BNNano's proprietary Nanobarb™, a Boron Nitride Nanotube embedded with mechanical barbs designed to enhance reinforcing properties.

MAE faculty, Drs. Claudia Luhrs, Emre Gunduz, and Andy Nieto, are NPS' key collaborators incorporating the Nanobarb™ into their research, which tailors materials' properties resulting in nanomaterials with a wide range of applications (i.e., supercapacitors, impact resistant structural components, microelectronics, high temperature systems and conductive aerospace composite structures). The researchers plan to look into enhancing the thermal conductivity of lightweight carbon composites used by the aerospace industry as well as phase change materials to optimize temperature regulation systems in living and storage spaces.

"The idea is to see how the properties of the material compares to the applications where we're already using boron nitride," said Luhrs. "Each of us has individual projects in which we are using boron nitride, and [BNNano's] part of the collaboration is providing the materials while we evaluate it and share the data as how effective it might be for different applications."

Nanomaterials are not necessarily an inexpensive resource, but due to the CRADA, the NPS students who come to NPS with operational experience to research warfighting solutions as they get their graduate education, now have more access to them for research.

"We're basically augmenting existing projects with this, taking note of research results and the students' experience," said Gunduz. "I think that works for both sides. There are some theoretical potential gains in the performance by using even small amounts of these additives in the regular metal or other things."

According to Nieto, student and faculty research at NPS has the ability to accelerate applied research solutions to key operational problems.

"There's plenty of opportunities on these projects," said Nieto. "For the most part, the research at NPS is focused on defense or Navy purposes. Ideally, these students will take what they learn and apply it to challenges directly forward [in the Fleet]."

In fact, the collaboration between NPS and BNNano is the direct result of an NPS alumnus applying his NPS experience while working

to advance nanotechnology. While working with BNNano, NPS Systems Technology graduate and retired Marine Corps Lt. Col. Scott Kish saw potential applications of their nanotechnology within DOD capabilities, and worked to connect the company with NPS to develop potential breakthroughs.

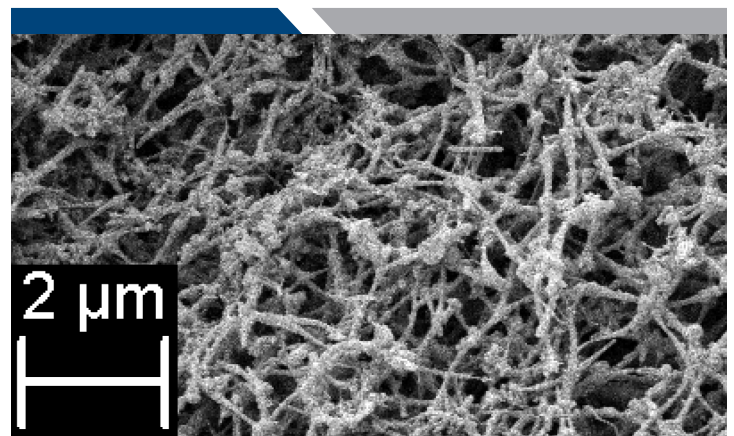
"The idea that BNNano should collaborate with NPS came from my military experience and military educational opportunities," said Kish. "I was fortunate to receive all my education from U.S. Navy institutions starting with the Naval Academy, but it was at NPS where I was able to participate in a variety of study opportunities that provided us innovative and creative ways to develop solutions to Navy and Marine Corps challenges."

While studying at NPS, Kish remembered how NPS was involved with private industry. He realized that using commercial platforms to help address military challenges can have a tremendous impact, so he discussed the opportunity with the leadership at BNNano who were quick to support the endeavor.

"We believe that our boron nitride nanobarbs may have a tremendous impact on a number of military capabilities. When we first started testing our nanomaterial, it was quickly apparent that the technology could help transform maritime capabilities due to its properties and we thought that NPS was the perfect partner to research opportunities to assist the US Navy and DoD," said Steve Wilcenski, BNNano's CEO and Co-Founder.

Teaming up with private technology companies through CRADAs not only benefits the university and the DOD, but the partnering company as well.

"NPS brings a number of research capabilities to the table that will benefit the DoD and BNNano. They have world-class research and laboratory facilities. The other element that BNNano is excited about is the opportunity for the NPS students to get experience in working with our nanomaterials," said Jason Taylor, BNNano's Chief Technology Officer and Co-Founder.



A scanning electron microscope (SEM) image of BNNano's Nanobarb™, enhanced to micron level to show the detail of the embedded crystal barbs that enhance reinforcing properties of a Boron Nitride Nanotube when bonded to materials.

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“Missile Defense and Technology Warriors”



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Vice Admiral Hill is the 11th Director of the Missile Defense Agency (MDA) where he oversees the agency’s mission to develop, deliver, and sustain layered capabilities to defend the United States, deployed forces, allies and friends against missile attacks in all phases of flight. Prior to leading MDA he was Program Executive Officer for Integrated Warfare Systems where he developed and certified deployment of all surface ship combat control systems, radars, missiles, launchers, electronic warfare, naval gunnery systems, and surface and subsurface anti-submarine warfare mission capabilities within the Fleet and Joint Force. He has held other leadership and acquisition engineering positions in the Navy, including AEGIS Shipbuilding (PMS 400) and Naval Surface Warfare Center Dahlgren Division and Port Hueneme Division. He also served as AEGIS Combat Systems Major Program Manager responsible for delivering Naval Integrated Fire Control and Counter Air and Integrated Air and Missile Defense capabilities to forces afloat. Learn more about the NPS [Meyer Scholar program](#) for missile defense. Hill is a graduate of the university’s Applied Physics and Ordnance Engineering curriculum, and a recipient of the NPS Distinguished Alumnus award.

V-SGL series page
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Enlisted Marine Earns Top Marine Corps Student Award

By Javier Chagoya

Out of 35 U.S. Marine Corps students graduating this quarter, Staff Sgt. Warren Diffey, a Foreign Area Staff Non-Commissioned Officer (FASNCO), has earned the 2021 Winter Quarter Marine Corps Association Superior Service Award for Outstanding U.S. Marine Student, one of a few enlisted Marines to have earned this honor. This award is presented to a graduating Marine Corps student based on superior contributions to the student body, professional community, and local Monterey area.

Diffey is one of the few staff non-commissioned officers (SNCO) at NPS who are now in an education pipeline which fosters greater academic goals for enlisted Marines. The rigorous, one-year certificate Foreign Area (FA) SNCO program had Diffey participating with many Marine Corps officers who will go on to be FA officers around the globe. One of the main differences is the certificate program does not require a thesis to be written. Nonetheless, according to National Security Affairs faculty, Diffey was a standout student and held his own with his classmates.

As his award nomination letter reads, “In each class ... Staff Sgt. Diffey was just one among more than 20 students, yet he always stood out as one of the best. Beyond his written work, which was excellent, he distinguished himself by his consistently high level of preparation, engagement, participation and achievement.” Diffey was highly honored to be selected for the honor.

“It still doesn’t seem real,” he said. “I am deeply thankful to all my professors and the other faculty members that helped me during my time at NPS. I am so grateful to have had the opportunity to learn from such diverse and highly-respected individuals. All my professors love what they teach and are willing to spend time outside of classes discussing any topic within their field.”

Diffey’s high praise for NSA faculty and his respect for his fellow students is part of his ethos in becoming the best FASNCO he can be. He is looking to the future where his contributions will make a difference in the Marine Corps.

“This is one of the most incredible opportunities that I have been afforded in my career. The level of education provided at this institution was above and beyond my expectations,” said Diffey.

Diffey showed he was an exemplary student by his preparation for the coursework last fall, which involved a series of case studies and concluded with a crisis simulation that requires close collaboration with a group of students to predict an Asian country’s most likely course of action in response to a complex crisis.



U.S. Marine Corps student Staff Sgt. Warren Diffey is NPS’ Winter Quarter Graduation recipient of the Marine Corps Association Superior Service Award for Outstanding U.S. Marine Corps Student. (U.S. Navy photo by Javier Chagoya)

“The battlefield is becoming more complex, and it is necessary to leverage all the talent that the armed forces possess to be prepared for the future,” said Diffey. “Future warfighters need to be more intelligent, think faster, and make more significant decisions than their predecessors. Staff NCOs must be armed with the critical thinking skills provided by institutions of higher education to succeed in Great Power Competition. I cannot think of a better institution to provide these skills to Staff NCOs than NPS.”

Diffey will now begin his follow-on training as soon as COVID-19 travel restrictions are lifted, attending virtual language training in Japanese following his graduation on Mar. 26.

One of Diffey’s long term goals is to achieve the rank of Master Gunnery Sergeant and be a Marine as long as the Corps will keep him.

“The truth is I want to retire knowing that I made the Corps better in some way. I am grateful for my life, and I owe it all to the institution that I serve,” he said. “My long-term goal is to get into a position to make the biggest impact and invest my energy into repaying the debt that I owe to the Corps.”

Diffey graduates with an NPS Certificate in East Asia and Indo-Pacific Regional Security Studies.



Any Day at NPS



Retired Vice Adm. Ann Rondeau, left, speaks at Capt. Bernard Wang's retirement ceremony, March 23. Capt. Wang served in the U.S. Navy for 33 years. (U.S. Navy photo by Javier Chagoya)



MC2 Nate Serpico, right, recites the oath of enlistment during his reenlistment ceremony with Lt. Cmdr. Michael Larson, March 23. (U.S. Navy photo by Javier Chagoya)



Students from the Defense Resources Management Institute's (DRMI) International Defense Management 21-3 course gather for a class photo, March 10. (U.S. Navy photo by MC3 James Norket)



USMC Capt. Luke Klena conducts an experiment involving the mitigation of Radio Frequency (RF) in combat scenarios with the help of the Joint Vulnerability Assessment Branch (JVAB) during the Joint Interagency Field Experimentation (JIFX) 21-2 program, March 3. (U.S. Navy photo by Javier Chagoya)



Yeoman First 1st Class Alice Flowers, left, receives a Navy and Marine Corps Commendation Medal from NPS Chief of Staff Capt. Phillip Old during an Awards at Quarters ceremony, March 26. (U.S. Navy photo by MC3 James Norket)



NPS students launch a high-altitude balloon (HAB) system used to relay data from an over-the-horizon drone to a ground user as part of a field experiment to build and test a deployable SATCOM relay gap filler outside the Monterey Bay Academy Airport, March 4. (U.S. Navy photo by Javier Chagoya)

FACULTY news & notes

The following faculty were recognized as winners of the 2020 Winter Quarter NPS Awards:

- **Meyer Award for Teaching Excellence in Systems Engineering (Distance Learning):** Lecturer Timothy P. Anderson and Assistant Professor Douglas L. Van Bossuyt
- **The Graduate School of Defense Management Executive Master of Business Administration Teaching Excellence Award:** Dr. Eddine Dahel, Graduate School of Defense Management

Dr. Peter Denning, a distinguished professor here at NPS, was the **2021 IEEE Computer Society Women of ENIAC Computer Pioneer Award Recipient**. He was recognized for seminal contributions to virtual memory, the Internet infrastructure, and computing education.

Associate Professor Don Brutzman was selected to receive the **2021 VADM Charles B Martell - David Bushnell Award** from the National Defense Industrial Association for his exceptional contributions in the field of anti-submarine warfare and/or Undersea Warfare.

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



CHIEF PETTY OFFICERS

IT'S IN THE CREED

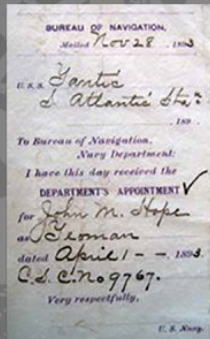


DECKPLATE LEADERS

CHIEF PETTY OFFICERS MAKE UP THE HIGHEST ENLISTED RANKS IN THE U.S. NAVY. KNOWN AS "DECKPLATE LEADERS" CHIEFS ACT AS A BRIDGE BETWEEN OFFICERS AND JUNIOR ENLISTED.

APRIL 1, 1893

DATE PROCLAIMED BY NAVY CIRCULAR #1 (EARLY NAVADMIN MESSAGE) THAT CREATED THE ESTABLISHMENT OF A CHIEF PETTY OFFICER RANK.



55

NUMBER OF CHIEF PETTY OFFICERS THAT HAVE EARNED THE MEDAL OF HONOR.



DECKPLATES TO KEELS

CHIEFS ARE SO VITAL TO THE NAVY THAT TWO SHIPS HAVE BEEN NAMED USS CHIEF (BOTH MINESWEEPERS).



OLDEST RATINGS

SINCE 1797, ONLY TWO RATINGS HAVE CONTINUOUSLY INCLUDED CHIEFS AMONG THEIR RANKS: BOATSWAIN'S MATE AND GUNNER'S MATE.

GOATLOCKER

FROM THE AGE OF SAIL TO STEAM, GOATS WERE KEPT ABOARD SHIPS IN SEPARATE COMPARTMENTS KNOWN AS "GOAT LOCKERS." STUBBORN, SURE-FOOTED AND TOUGH, GOATS WERE USED FOR THEIR FRESH MILK AND MEAT - THEY ALSO HELPED LIFT UP MORALE. GOAT LOCKERS WERE EVENTUALLY ADOPTED BY CHIEFS WHO KEPT THE NAME AND ADOPTED THE GOAT MONIKER.



FIRST FEMALE CHIEF

ON MARCH 21, 1917, LORETTA WALSH BECAME THE FIRST WOMAN NAVY CHIEF PETTY OFFICER WHEN SWORN IN AS A CHIEF YEOMAN.

FOULED ANCHOR

THE CHIEF PETTY OFFICER CAP DEVICE WAS AUTHORIZED IN 1897. CPO COLLAR DEVICES WERE INTRODUCED IN 1959.

ROCKER DEVICE

THE ADVENT OF A ROCKER DEVICE WAS THE FIRST INSIGNIA FOR CHIEFS TO WEAR, AND WAS ORIGINALLY BORROWED FROM THE MASTER-AT-ARMS RATING. IT BECAME OFFICIAL IN 1894.

CREED

THE ORIGINAL VERSION OF THE CPO CREED WAS WRITTEN IN THE LATE 1940S. READING THE CREED BECAME A FIXTURE IN THE TRANSITION OF A FIRST CLASS TO THE VISIBLE, CONFIDENTLY HUMBLE DECKPLATE LEADERS CHIEFS STRIVE TO BE.





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April 6

Virtual Town Hall
3:00 p.m. | Online



April 13

V-SGL with Vice Admiral Jon. A. Hill: *Missile Defense and Technology Warriors*
3:00 p.m. | Online

April 15

President's Ask Me Anything
3:00 p.m. | Online



PRESIDENT'S
ASK ME ANYTHING



April 20-22

Naval Research Working Group
NRWG 21



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