



JANUARY 2023

Happy New Year – 2022 Successes Lead to 2023 Momentum

To our NPS Community:

2022 was an inspiring year of growth and transformation for the Naval Postgraduate School and the NPS Foundation. The Department of the Navy has made it a priority for the Navy to innovate and modernize by strengthening partnerships with academia and industry. NPS has taken a vital role in this initiative by strengthening and expanding key partnerships and establishing itself as an innovation leader across the Department of Defense. During the past year, NPS announced cooperative research agreements with many industry leaders, including [Microsoft](#), launched the [Nimitz Research Group with U.S. Pacific Fleet](#), and recently announced a [partnership with the Stanford Doerr School of Sustainability](#) to foster collaborative opportunities addressing climate, sustainability, and energy security issues. The year came to an exciting end with a notable announcement by the Secretary of the Navy, Mr. Carlos Del Toro, on building the new [Naval Innovation Center at NPS](#).

The Foundation is carrying this momentum into the new year. We are dedicated to making an even more significant impact on NPS and its students and alumni, the Department of Defense and national security in 2023. Thanks to the generous contributions of our supporters, the NPS Foundation was able to provide over \$4 Million in support of Foundation programs and NPS initiatives in 2022.

We look forward to continuing work on the Naval Innovation Center at NPS initiative, expanding corporate partnerships, supporting key national security research and creating more opportunities for NPS alumni to connect and reconnect with the school and each other in 2023.

Warmest Regards and Happy New Year!
Rich Patterson, CEO

[Watch the Announcement](#)

Naval Postgraduate School Foundation appoints former Secretary of Defense and former Chevron CEO as advisors



The Naval Postgraduate School Foundation has appointed Former Secretary of Defense the Hon. [Leon Panetta](#) and retired Chevron CEO [David O'Reilly](#) to its Advisory Council.

The new members join the NPS Foundation at an exciting juncture for both

the Foundation and the Naval Postgraduate School as the Department of the Navy calls upon NPS to take on a profound role in leading innovation across the DOD. The Secretary of the Navy, Carlos Del Toro, [shared plans to create a Naval Innovation Center at the Naval Postgraduate School](#) in Monterey during his December 8, 2022 presentation at Columbia University and again during a [commencement speech at the NPS Fall 2022 Graduation](#) on December 16. [Read more.](#)

"I am honored to be a member of the advisory council. As a former representative for this area and former Secretary of Defense, I believe the Naval Postgraduate School is critical to our national defense. The opportunity to work with my distinguished colleagues on the council to ensure that [NPS] is on the cutting edge of technology and innovation is the fulfillment of a dream we all share." - The Hon. Leon Panetta

Thank you to all that attended the 2022 Grand Winter Ball! We enjoyed bringing the NPS and Monterey Community together in the beautiful Barbara McNitt ballroom for an evening of wonderful conversation, dining and dancing.

[Photo Album](#)



A Year of Moving Forward - NPS President's End of Year Message and 2022 in Review

Team NPS,

2022 was a year of moving forward. As we wind down and prepare for 2023, I want to take this opportunity on behalf of Provost Gartner and our senior leadership to thank you all for your dedication to our mission, your hard work and many accomplishments.

This is my fourth year as your NPS President and I can say with confidence that it was a turning point for our institution. We worked hard to increase our curricula and research alignment to higher guidance, while restructuring NPS to be more responsive to Fleet requirements. We sharpened our financial planning, launched our campus modernization, and expanded our strategic partnerships with industry and academia – all of which strengthened our institution and set the stage for our envisioned future.

As I reflect on the year, I cannot list all we have done together, but I would like to share a few highlights in the enclosed [Year in Review](#). I encourage you to read it in order to get a sense of the breadth of activity and impacts you are making.

Together we are building the future of NPS – a place “where science meets the art of warfare.”

With great respect and in abiding service,

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

[NPS Year In Review](#)

Biden signs national defense authorization act into law including the “Strengthening the Force and Fleet Through Enlisted Education Act”

U.S. Marine Corps Gunnery Sgt. **Brandon Smart**, MBA '22, helped NPS expand its field of warrior-scholars to incorporate more enlisted personnel. While a student at NPS, Smart – who was recently selected for promotion to first sergeant – briefed a visiting congressional staff delegation about his research in talent management.

Smart’s work was so impressive, it became the foundation for the “Strengthening the Force and Fleet Through Enlisted Education Act,” submitted by the House Armed Services Committee. This act, referred to as the “Smart Act” in honor of its originator, was signed into law by President Biden as part of the Fiscal Year 2023 National Defense Authorization Act. The “Smart Act” expands advanced degree opportunities for enlisted service members at NPS.

“Our enlisted men and women are the backbone of our military and make up about 80 percent of our Armed Forces. That’s why we should invest in our enlisted servicemembers by providing them with more opportunities for higher education degrees,” said Rep. Jimmy Panetta. [Read more.](#)



Longtime NPS Librarian Honored by U.S. Secret Service CHDS Alums

In her more than three decades as a librarian, the much-lauded **Greta Marlatt** can't remember being honored like she was on Friday, Dec. 16.

That's when a couple of U.S. Secret Service agents, who are also Center for Homeland Defense and Security alums, surprised the longtime Naval Postgraduate School librarian at Dudley Knox Library in Monterey, CA, with an honorary plaque recognizing her service on behalf of CHDS students.

Presented by U.S. Secret Service Assistant to the Special Agent in Charge at Washington D.C. headquarters Chris Gojcz, who had just graduated with the CHDS Master's cohort 2103/2104 earlier in the day, and U.S. Secret Service Special Agent in Charge in the San Francisco field office Shawn Bradstreet (Master's cohort 1803/1804), the plaque read "Presented in Appreciation to Greta Marlatt, Outreach & Academic Support Manager, Dudley Knox Library, Naval Postgraduate [School] Program, for outstanding assistance and support on behalf of the investigative and protective responsibilities of the United States Secret Service, 2022."

Gojcz said the U.S. Secret Service wanted to recognize Marlatt on behalf of the many agents who had graduated from CHDS educational programs and for her "unwavering support" for the agency and its CHDS alums.

"It really has to do with quiet leaders," he said. "People who you can depend on throughout the (educational process). She supported me throughout my own (Master's) thesis process. All U.S. Secret Service CHDS alumni talk about Greta and they told me, 'Make sure you get to know her.'" [Read more.](#)

Naval Postgraduate School Joins Consortium for Applied Hypersonics Research

The Naval Postgraduate School has recently been accepted into the University Consortium for Applied Hypersonics (UCAH), a

collaborative network of academia, industry and laboratories that serves the U.S. Department of Defense through research and development in the field of hypersonics.



“This is a real milestone for NPS,” said retired U.S. Navy Capt. **John Hammerer**, NPS Chair of Integrated Air and Missile Defense. “We are now in the community of hypersonic research and we have access to all the resources and research being done by the universities and industries that are part of the University Consortium of Applied Hypersonics.”

The consortium fosters collaboration with more than 100 universities and 150 industry partners working on hypersonics. The UCAH's mission is to serve DOD requirements in science and technology, workforce development, and technology transition, by mobilizing and leveraging the academic community and its partners to deliver solutions to DOD-defined research and prototype projects. [Read more.](#)



NPS Research in Electromagnetic Waves Hunts for Ship's ‘Ghost Signals’

Oceans cover more than 70 percent of the world and finding ships at sea – especially those that do not want to be found – is still quite a challenge. Naval

Postgraduate School Department of Meteorology professor **Qing Wang** is on the hunt, tracking atmospheric conditions that result in what are known as “ghost signals,” where ship radar or radio communications travel and linger well beyond the line-of-sight horizon.

To catch these ghosts, Wang has been leading a research effort that, coincidentally, is the name of a familiar and friendly ghost. CASPER, or Coupled Air-Sea Processes and Electromagnetic Ducting Research, is a collaborative effort initially funded by the Office of Naval Research through the Multidisciplinary University Research Initiatives (MURI) Program. The grant funded six primary investigators from different universities – Ohio State University; Oregon State University, University of California, Irvine; University of Minnesota, and Notre Dame – led by Wang at NPS.

According to ONR's Marine Meteorology and Space Weather Team Lead, Dr. Daniel Eleuterio, the CASPER MURI is an excellent example of coordinated basic and applied research where the MURI program provides funding for multidisciplinary solutions to emerging or particularly complex scientific challenges.

“Dr. Wang, with her team of university colleagues and NPS students, have done terrific work and provided future leaders for the Navy and our allies a deep understanding of the fundamentals of Electromagnetic Maneuver Warfare,” said Eleuterio. [Read more.](#)

Alumni Updates

President Joe Biden appointed Marine Corps Brig. Gen. **Lorna Mahlock** to the rank of major general, the Pentagon announced on Dec. 6, and the Senate confirmed Thursday, Dec. 15. Mahlock is the deputy director of cybersecurity for combat support at the National Security Agency at Fort Meade, Maryland.

A native of Kingston, Jamaica, Mahlock enlisted in the Marine Corps in 1985. She received her commission through the Marine Corps Enlisted Commissioning Education Program in December 1991 after graduating from Marquette. In 2018, she became the first Black female brigadier general. She currently serves as the deputy director of cybersecurity for combat support with the National Security Agency. Mahlock has a master's degree in Adult and Higher Education from the University of



Oklahoma at Norman, a master's in National Security and Strategic Studies with distinction from the Naval War College, a master's in strategic studies from the U.S. Army War College and a master's certificate in Information Operations from the Naval Postgraduate School.

On December 31, 2022, the Board of Directors of Innovative Rocket Technologies Inc. appointed retired U.S. Army Gen. **Stephen "Steve" Lyons**, MS in Management '93, as a director.



Lyons, joins the Board following more than 38 years of distinguished military service, culminating in his service from 2018 to 2021 as the 13th commander of U.S. Transportation Command, one of 11 DOD combatant commands. USTRANSCOM's mission is to project and sustain military power globally in order to assure our friends and allies, deter potential adversaries, and if necessary respond to win decisively. Lyons began his career in Germany during the Cold War and subsequently held a wide range of assignments including command at every level, multiple operational deployments, and over six years of experience in joint assignments. As a battalion commander in 2003, he participated in 3d Infantry Division's major combat operations to invade Iraq. Since 2003, he has spent over 40 months deployed to the U.S. Central Command area of responsibility in support of Operation Iraqi Freedom and Operation Enduring Freedom (Afghanistan). Lyons retired from the United States Army in 2021.

Just seven months after her retirement ceremony in April 2022, retired Rear Adm. **Joanna Nunan**, CHDS Executive Leaders Program and Pacific Executive Leaders Program, was appointed as the 14th superintendent of the U.S. Merchant Marine Academy at Kings Point, NY, the first woman to take over the prestigious post.

During her more than three decades in the Coast Guard, the 1987 Coast Guard Academy graduate rose through the ranks to top leadership positions including Deputy for Personnel Readiness, in which she oversaw the Coast Guard's entire personnel enterprise including the recruitment, training, support, and retention of all active duty, reserve, and civilian personnel. [Read more.](#)



Steven E. Maceda, MA in Security Studies (Stabilization and Reconstruction) '07, recently joined the Institute for Defense Analyses (IDA) as a research staff member in the Intelligence Analyses Division of IDA's Systems and Analyses Center.

IDA is a nonprofit corporation that operates three federally funded research and development centers in the public interest. IDA answers the most challenging U.S. security and science policy questions with objective analysis leveraging extraordinary scientific, technical and analytic expertise.

Kenneth A. Pravetz, MA in Security Studies '19, was officially sworn into office as the new Fire Chief for the Virginia Beach Fire Department at a ceremony held in City Council Chamber, Jan. 3, 2023.

Prior to being appointed as Fire Chief, Pravetz served with the Virginia Beach Fire Department since February 1999. Chief Pravetz has 35 years of career fire experience. He is a U.S. Air Force Veteran. Chief Pravetz has worked for Virginia Beach for 23 years. As he progressed through the ranks, Chief Pravetz held many challenging assignments. His current assignment is the Deputy Chief of Services responsible for personnel, finance, training, logistics, planning, and community risk reduction. As a member of the Federal Emergency Management Agency Urban Search & Rescue Virginia Task Force 2, based out of Virginia Beach, Chief Pravetz has deployed to several National Disasters as a planning team member and task force leader.



[Submit an Alumni Update](#)

[Meet more Students & Alumni: Faces of NPS](#)



Remembering Cmdr. Robert "Bobby" Ramirez

The NPS Foundation & Alumni Association team was very saddened to learn Cmdr. **Robert "Bobby" Ramirez III**, Commander of SEAL Team 1, passed away on December 19, 2022.

By all accounts, Ramirez was an incredible father, husband, leader, warrior, teammate, classmate and friend. With twenty-seven years of dedicated Naval service, Ramirez completed eleven deployments, including multiple combat tours in Iraq and Afghanistan.

"Bobby was an outstanding leader, devoted husband and father, and a good friend to us all,"

Capt. David Abernathy, commanding officer of Naval Special Warfare Group 1, said in a statement.

Our deepest condolences go out to the family and friends of Cmdr. Ramirez at this time.

Upcoming Events



WEST 2023 - San Diego Alumni Event!

Join fellow NPS alumni, NPS representatives, industry partners and the NPS Foundation at Basic Bar & Pizza on February 14 at 4:30 p.m. for hosted refreshments socializing and networking! Learn more about [WEST 2023](#).

[RSVP](#)

In Case You Missed It:

4 Startling Ways China Is Challenging the U.S.

Tensions between Beijing and Washington have been steadily increasing for years. Some of the competition has been plain to see. But other aspects of China's quest for power are much more subtle. Beijing is also playing a quieter game, using non-military means to propel its push for influence and dominance across the Indo-Pacific and beyond. Talk to the China watchers in Washington and they'll say these moves pose a trickier but no less belligerent set of challenges to the U.S. and its allies than China's overt military buildup — whether it's China's deputizing commercial fishing ships to act as extensions of its Navy, it's pumping money into private tech firms building drones and semiconductors for export across the globe, or it's allowing government censors to dip into social media algorithms used by American teenagers. These are all part of a wider strategy to spread Chinese influence by marrying the military and commercial aspects of Chinese power, and which poses startling new threats to the United States. [Read more.](#)

Joint Forces and Integrated Deterrence: Rebalancing China in the Western Pacific

By Douglas A. Borer, Associate Professor in the Defense Analysis Dept. at NPS and Shannon C. Houck, Assistant Professor in the Defense Analysis Dept. at NPS

With the rise of the People's Republic of China (PRC) as a Naval power, the conventional US Army, Marine Corps, and SOF must all show their relevance to the Navy-lead Joint Force as it prepares for a peer-to-peer fight with a PRC that now has more ships than the U.S. Distributed and networked land-based forces, mostly consisting of very small units, should be seen as *platforms* of integrated deterrence in the same manner that surface ships, submarines, and aircraft are viewed today... We suggest the forward deployment in the Pacific islands of a widely distributed network of micro-sized joint units. These units (3 or more personnel) would be equipped with a communications capability to gather and share intelligence and call down remote strikes, but also be armed with weapons like those being used in Ukraine to threaten enemy ships and combatants. The ideal make-up of these units is yet to be determined, but we imagine some combination of SOF and SIF would be logical. Collectively, a hundred or more such units would give the PRC something new to worry about, and deterrence is all about making the other side worry. [Read more.](#)

Contemporary Need for Special Forces in United Nations Peacekeeping Operations

By Ghanaian Lieutenant Colonel Ernest Bosompem Darkwah, Currently pursuing a MS in Defense Analysis (Irregular Warfare) from NPS

Conflicts in the world have taken a complex dimension which has affected the traditional approach to Peace Operations. Violent conflicts around the world have mostly been intra-state conflict with few inter-states conflicts occurring occasionally. The regionalization of modern conflicts, which interlinks political, socio-economic and military issues across borders, has seen many conflicts become less responsive to traditional forms of resolution. Time and again, civilians become the targets of violence in conflicts. In the last 30 years of internal armed conflicts, nearly one million civilians have been killed in deliberate attacks by armed groups. These conflicts require the deployment of a robust intervention force by the international community to prevent genocides and also protect the populace from the scourge of war.

The United Nations has so far deployed Special Forces to the Democratic Republic of the Congo, Burundi, Sudan and Mali. It is worth noting that, not all United Nations missions are deployed with Special Operations Forces. The deployment and use of robust peacekeepers in the form of Special Operations Forces will be able to limit harm and protect non-combatants. This will give the populace of war-torn areas protection and confidence to go about their daily activities without fear of being attacked. [Read more.](#)

It's a Bird, It's a Plane, It's... Time to Plan for Drones in other Domains

On October 29, Ukraine deployed a total of sixteen drones in an attack on the Russian Black Sea Fleet. The extent of the physical damage inflicted by the attack is unclear, though a Russian minehunter and a frigate appear to have been damaged. But the larger psychological effects were significant: Russia appears to have withdrawn many of its ships, moving them to more secure ports, which limits the firepower and presence they can provide. Russia also upgraded the defenses of those ports, adding numerous booms throughout the area. But that didn't stop another Ukrainian attack with unmanned vehicles on Novorossiysk a couple weeks later.

For example, Russia is developing multidomain swarms in which UAVs guide heavy UGVs. Likewise, the US Navy has developed small USV swarms, while the **Naval Postgraduate School is exploring "super swarms" involving thousands of drones.** That creates a dilemma for defenders: Which drones should be the priority? Is it better to blind the UAVs providing guidance to a UGV mounted

with a cannon, or target the ground vehicle? Can weapons like high-powered microwaves transition between and fire from a sufficiently large range of angles to counter drones operating in multiple domains? The Sevastopol attacks show integration into a single system is not necessary to raise these dilemmas, though dynamic, AI-driven maneuver may exacerbate the dilemmas drastically.

The challenge is the United States does not appear well prepared to tackle these challenges. Although countering UAVs has gotten extensive attention, far less has been paid to countering nonaerial drones. In fact, in the open-source literature, there is scant analysis that focuses on differences in domain, except for a **Naval Postgraduate School capstone research project on a counter-UUV system architecture**. Defense budget documents do suggest parts of the Pentagon are at least aware: the fiscal year 2019 defense budget included funding to improve USV situational awareness for the I-Stalker / Sea Sparrow missile system. [Read more.](#)

How NATO can keep pace with hybrid threats in the Black Sea region and beyond

By Arnold C. Dupuy, Faculty Associate, Energy Academic Group, Naval Postgraduate School

Russian attacks on Ukraine's infrastructure in recent months have highlighted the devastating impact of twenty-first-century warfare and the resulting vulnerability of civilian life. A major component of modern warfare is the hybrid threat, in which Russia is a most aggressive perpetrator.

Indeed, the Kremlin effectively implemented hybrid warfare in the 2014 annexation of Crimea and continues to use similar tactics to influence political outcomes in Moscow's favor. Hybrid warfare, which includes cyberwar and malign influence, allows states and non-state actors to impact the political stability of adversaries with limited or no use of conventional military forces. This is significant as it gives states, as well as terrorist and criminal organizations, a low-cost method to influence the politics and policies of other states or even capture territory.

An important aspect of hybrid warfare is the ability to attack and disrupt civilian infrastructure—in particular the power grid and fuel distribution systems that form the backbone of a country's energy sector. One only has to remember the persistent Russian attacks on Ukraine's energy infrastructure, starting with the December 2015 cyberattack using the BlackPower malware. More recently, the Colonial Pipeline ransomware hack in the United States in May 2021 also served as a glaring [example](#) of this phenomenon. [Read more.](#)

'It Is About Being Combat Ready': An Interview With Navy Secretary Del Toro

In some circles, we talk about capacity as if capacity or even technology alone were the single most important factor in deterring our adversaries. That's not the case; it's actually strategy that matters most. I want to highlight the importance of strategic thinking, and I'm deeply committed to making major investments in professional military education at all our major institutions—the Naval Academy, the Naval Postgraduate School, the Naval War College. I want to develop future leaders who will go into the Navy and study strategy. I'm privileged as Secretary of the Navy to have gone to the Naval Academy and the Naval Postgraduate School, where I studied electrical engineering and space systems engineering. That education alone taught me the importance of cyber and the importance of our satellite communications networks and other things that made me a better warfighter. But it also made me better understand strategy and how you apply space capabilities to conflicts to hopefully avoid escalation.

When I came in as Secretary, I put together an Education Task Force of high-powered individuals who have a lot of experience and education, both as civilians and military folks. I charged them with assessing all the studies that have been done in the past five years and instructed them to develop a clear, concise set of recommendations on investments to be made over the next Future Years Defense Plan. That group is concluding their efforts; I hope to have guidance for the direction we want to go and a set of concrete recommendations I can implement quickly to improve our education system across the department. That includes the Naval War College, the Naval Postgraduate School, the Marine Corps Command and Staff College, the Naval Academy, and our Navy Community College as well. [Read more.](#)

Faces of NPS: Innovation and Transformation at NPS

An Honest Broker No Longer: The United States Between Turkey and Greece

The US military is planning for a 'transformative' year in Asia as tensions with China continue to rise

House bans TikTok on government devices

The Best Advice We've Heard From Former 'Jeopardy!' Contestants On How To Dominate The Game

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In-store pick-up available for local orders. The shop is now open Monday through Friday from 10 a.m. to 4 p.m. Questions about the shop or the merchandise available? Contact the Peacock Shop [Manager](#).

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