



NPS IN THE NEWS

Weekly Media Report – Feb. 23 - Mar. 1, 2021

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COMMENTARY:

1. [A Unique Take on NPS: Important Then, Critical Today](#)

(USNI Feb 21) ... Dr. Wayne Porter

Fifteen years ago, the Naval Postgraduate School (NPS) was spared from the Base Realignment and Closure Study for good reasons. The school is even more important and relevant to naval and national security today.

2. [Liberals and security hawks can find common green ground](#)

(Financial Times 26 Feb 21) ... Rana Foroohar

Defence hawks and liberal progressives do not typically make easy political bedfellows. And yet there is an issue where their interests may align almost perfectly: climate change... Such measures could create new middle-class jobs, something that both sides are interested in. Progressives have ideological reasons: they want to see the balance between capital and labour tip more towards the latter; defence hawks see national security and economic security as indivisible. “We look at diplomacy, the military, the economy and information as different elements of national power,” says **Jeff Kline, a professor at the Naval Postgraduate School in Monterey, California**. “You can’t separate them.”

COVID-19 UPDATE:

3. [Presidio of Monterey helping county to reach herd immunity through DoD vaccinations](#) [\[Video Interview\]](#)

(KSBW 24 Feb 21) ... Caitlin Conrad

The Presidio Monterey is moving at a constant clip through its COVID-19 vaccine distribution plan, each shot bringing military members, and the community as a whole, closer to herd immunity... Solomon is the commander of the California Medical Detachment and Director of Health Services at the Presidio of Monterey. CAL MED supports DLI, U.S. Army Garrison Presidio of Monterey, the **Naval Postgraduate School**, Naval Support Activity Monterey, the Fleet Numerical Meteorology and Oceanography Center and the U.S. Coast Guard Station Monterey.

4. [Presidio of Monterey working to get COVID-19 vaccine to 18K through CalMED](#)

(Monterey Herald 26 Feb 21) ... James Herrera

The Presidio of Monterey began inoculating eligible personnel with the COVID-19 vaccine earlier this month and has already hit about 2,000 shoulders with Army medical leaders encouraging soldiers to be part of the solution to end the virus... California Medical Detachment supports the Defense Language Institute Foreign Language Center, U.S. Army Garrison Presidio of Monterey, **Naval Postgraduate School**, Naval Support Activity Monterey, Fleet Numerical Meteorology and Oceanography Center, U.S. Coast Guard Station Monterey and Fort Hunter Liggett in southern Monterey County.



5. [A third vaccine just got approved. Does that mean more vaccines will soon be available?](#)

(Salon 27 Feb 21) ... Matthew Rozsa

On Friday, a Food and Drug Administration (FDA) advisory committee authorized Johnson & Johnson's one-shot coronavirus vaccine, determining it to be safe and effective. This makes it likely that the FDA will allow the vaccine to be distributed throughout the United States potentially as early as Saturday. (It has not yet done so at the time of this writing.) When it does this, Johnson & Johnson's COVID-19 vaccine be the third vaccine allowed for distribution the United States, as well as the first designed to be given in one dose and to not utilize new mRNA technology... "People are also really concerned in this country with the idea of being tracked by the government, so this will play into how we communicate with them," **U.S. Air Force Major Daniel J. Finkenstadt, an assistant professor in the Graduate School of Defense Management at the Naval Postgraduate School**, said at a North Carolina State webinar in December. "How do we communicate that tracking through a personalized application is the safest bet for the whole country and for individuals – and that you're not giving up your liberties or your privacy by using these?"

RESEARCH:

6. [Naval Postgraduate School and Xerox Collaborate to Advance Additive Manufacturing Solutions](#)

(Navy.mil 1 Mar 21) ... Matthew Schehl

(NPS.edu 1 Mar 21) ... Matt Schehl

In January 2021, the Department of Defense published its first-ever Additive Manufacturing Strategy to “provide a shared set of guiding principles and a framework for [additive manufacturing] technology development and transition to support modernization and Warfighter readiness” across the military.

7. [DOD Selects NPS to Advance Research in Environmental Resilience and Surprise](#)

(Navy.mil 24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

(NPS.edu 24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

(EurekAlert!24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

The Department of Defense's (DOD) Strategic Environmental Research and Development Program (SERDP) has awarded the Naval Postgraduate School (NPS) funding to begin a new research project, titled “Advancing Resilience Theory and Tools to Combat Environmental Surprise,” focused on developing new theory and tools to better understand and prepare for future climate events that present challenges to military installation operations.

8. [US DOD SERDP awards funding to NPS for new research project](#)

(Naval Technology 25 Feb 21)

The Naval Postgraduate School (NPS) has been granted funding to work on a new research project called ‘Advancing Resilience Theory and Tools to Combat Environmental Surprise’.

9. [Naval Postgraduate School to study surprise climate issues in \\$2.4M award](#)

(UPI 24 Feb 21) ... Ed Adamczyk

The Naval Postgraduate School was awarded a \$2.4 million grant to study practices to better prepare for future climate events, the U.S. Navy said on Wednesday.

10. [Global Underwater Autonomous Vehicle \(AUV\) Market Will be US\\$ 60 Million in 2027 with CAGR 20.4 % – QYResearch Report](#)

(South Florida Theater Review 27 Feb 21) ... James Herrera

Underwater autonomous underwater vehicle is a kind of underwater unmanned vehicle. As the function of underwater autonomous underwater vehicle is further strengthened, its corresponding application is also popularized from the original military field to the civilian field... Among them, the most famous research institutes are Sea Grant's AUV Laboratory of Massachusetts institute of technology (MIT), intelligent Underwater vehicle research center of **Naval Postgraduate School** (us), and Underwater Robotics Application Laboratory (URA) of university of Tokyo (Japan).

EDUCATION:

11. Official Navy Reading List Includes ‘Anti-Racism’ Books

(American Greatness 26 Feb 21) ... Eric Lendrum

The United States Navy’s official curriculum is set to include new books on “anti-racism” and “gender politics” that will further push the message of social justice in America’s military ranks, according to the Washington Free Beacon... Although the current list is only meant for professional development, it is not yet required reading for sailors. But it is possible that such titles could become required reading in the future, potentially being used as part of the curriculum at the nation’s three naval educational institutions: The U.S. Naval Academy, the Naval War College, and the **Naval Postgraduate School**.

FACULTY:

12. Del Rey Oaks looks at process to find new city manager

(Monterey Herald 23 Feb 21) ... James Herrera

Del Rey Oaks is preparing to begin the process of finding a new city manager after accepting a resignation at the start of the month...According to Acting City Manager Jeff Hoyne, Pick resigned effective Feb. 1 and has taken a position with the **Naval Postgraduate School in Monterey**.

13. AIAA Announces its Class of 2021 Honorary Fellows and Fellows

(Space Ref 25 Feb 21)

The American Institute of Aeronautics and Astronautics (AIAA) proudly congratulates its newly elected Class of 2021 Honorary Fellows and Fellows. The induction ceremony for the new Honorary Fellows and Fellows will take place later this year... **Oleg A. Yakimenko, Naval Postgraduate School** Is one of the newest Fellows.

14. UK Government, BBC, and Reuters Exposed in Anti-Russia Propaganda Operations

(Sputnik News 25 Feb 21) ... Michelle Witte and Wilmer Leon

Alexander Mercouris, editor-in-chief at TheDuran.com and host of "The Duran" on YouTube, joins us to discuss an ongoing scandal involving a UK government media operation against Russia. Recently leaked documents reveal a secret UK government-funded operation involving the BBC and Reuters aimed at creating instability in Russia. The operation appears to be exactly the targeted propaganda that EU and US media outlets have accused the Russians of operating during the 2016 US election cycle... William J Astore, retired lieutenant USAF colonel, who has taught at the Air Force Academy and the **Naval Postgraduate School**, and now teaches History at the Pennsylvania College of Technology, joins us to discuss Afghanistan. Recent leaks from Capitol Hill say that military and intelligence officers have given President Biden three options for Afghanistan, none of which are particularly appealing. They present that Biden can stay indefinitely, follow the Trump negotiated May 1st withdrawal date, or attempt to negotiate an extension of the exit agreement with the Taliban. Meanwhile, the Taliban is stating that any changes in the current agreement for a May 1st withdrawal will cause problems.

15. Norwich University hosts second Peace and War Summit; experts will address U.S.-China relations

(Mountain Times 24 Feb 21)

Norwich University’s John and Mary Frances Patton Peace & War Center will host the second Peace and War Summit, which will address the escalating U.S.-China rivalry in 11 virtual sessions held over seven weeks from March 3 to April 21... The latest summit opens at 9 a.m. March 3 with keynote speaker Charles W. Hooper, who served 41 years in the U.S. Army and retired as a lieutenant general. Hooper spent much of his career focused on U.S. policy in the Indo-Pacific region, and specifically on the U.S.-China bilateral relationship. He completed two attaché assignments in Beijing, including as U.S. Defense Attaché to China, serving for a total of seven years in China. He also served as the senior country director for China, Taiwan, and Mongolia Policy in the Office of the Secretary of Defense, in addition to teaching Chinese foreign policy to rising U.S. military leaders at the **Naval Postgraduate School**.



16. WSPA's Reheis-Boyd: Oil, gas remain vital to future energy mix

(BIC Magazine 1 Mar 21) ... Eric L. Taylor

Catherine Reheis-Boyd, president of the Western States Petroleum Association (WSPA), is working to dispel the outdated notion that petroleum producers and environmental advocates are adversaries -- in order to guarantee the future of both... Although she received an academic scholarship to attend California Polytechnic State University (Cal Poly), Reheis-Boyd worked her way through college as both a seasonal aid at the California Department of Fish and Game and as a bricklayer. After earning her Bachelor of Science in natural resource management at Cal Poly, she accepted a job at an environmental consulting firm in La Jolla, California, which allowed her to take additional post-graduate coursework in environmental engineering at the University of Southern California. Her work at the consulting firm's energy resources division required Reheis-Boyd to travel the U.S. conducting source testing and tracer tests of facility stacks. Her experiences included measuring emissions at a power plant in Illinois and a geothermal power plant in Idaho, collecting wind data for computer modeling simulations on Vandenberg Air Force Base, living on a marine research vessel off the California coast, and tracking the release of sulfur hexafluoride gas onshore to measure the impact of offshore oil drilling emissions for the **Naval Postgraduate School**.

17. Lessons for the States on Energy Security

(Real Clear Energy 23 Feb 21) ... Dr. Brenda Shaffer

The recent extended electricity outage in Texas has spurred a sharp debate on how to prevent future disasters in Texas and other states. Much of this debate ignores the fact that few states have adopted a proactive approach to energy security. Instead, most have left energy security matters to market mechanisms and to Washington, neither of which can deliver on local needs. States would benefit from adopting energy security policies. In crafting these policies, they can learn from the tenets of international energy security policy as practiced by many countries with smaller populations and GNP than medium and large U.S. states... Dr. Brenda Shaffer is an international energy expert. She is a research faculty member of the US Naval Postgraduate School, a Senior Advisor for Energy at the Foundation for Defense of Democracies, and a Senior Fellow at the Atlantic Council's Global Energy Center. Her book *Energy Politics* is used as a textbook in over 200 university courses.

18. Turkey's mobsters step out of shadows and into public sphere

(The Guardian 23 Feb 21) ... Beth McKernan

After decades in hiding, in prison or keeping low profile, players from a bloody period in the country's history are now seen as 'folk idols' by the Turkish... According to **Ryan Gingeras, a professor at the Naval Postgraduate School** in California and author of *Heroin, Organised Crime, and the Making of Modern Turkey*, however, the political context today is very different.

ALUMNI:

19. Vice President Kamala Harris Calls NASA Astronaut Victor Glover

(NASA 27 Feb 21)

In celebration of Black History Month, NASA astronaut Victor Glover welcomed Vice President Kamala Harris to the International Space Station for a virtual chat... Selected as an astronaut in 2013, the California native holds a Bachelor of Science degree in general engineering from California Polytechnic State University, a Master of Science degree in flight test engineering and a master's degree military operational art and science from Air University, and a Master of Science degree in systems engineering from **Naval Postgraduate School**. Glover is a naval aviator and was a test pilot in the F/A-18 Hornet, Super Hornet, and EA-18G Growler aircraft. Follow Glover on Twitter and Instagram.

20. Watershed Security, LLC Selects Don General as CIO and Hezekiah Natta as COO

(PR.com 23 Feb 21)

Watershed Security, LLC, an ISO 9001:2015-certified provider of Cyber Security and Information Technology solutions for defense and civilian markets, has selected Don General to be their new Chief Information Officer and Hezekiah Natta as their Chief Operating Officer... He's earned a Bachelor of Science Degree in Interdisciplinary Studies from Norfolk State University, a Master's Degree in Information Systems Management from Troy University, and an Executive Masters in Business Administration from **Naval Postgraduate School**. Additionally, he maintains the Project Management Professional (PMP) certification.



21. Kill the Drug War: Death, Decisions, and the Limits of Military Power

(War on the Rocks 25 Feb 21) ... Collin Fox

To decide is to kill options, from Latin roots meaning “to cut away.” Given that real strategy demands hard choices, which extraneous missions must die on the altar of priority? The Department of Defense wandered into law enforcement roles as the Cold War faded and the end of history seductively promised an end to interstate competition. The excess of means and dearth of serious threats soon had the military chasing drug runners and trying to stabilize failed states... Lt. Cmdr. Collin Fox, U.S. Navy, is a foreign area officer who recently served as the Navy and Air Force Section Chief at the Office of Defense Cooperation, U.S. Embassy, Panama. He earned a master of systems analysis degree from the **Naval Postgraduate School** and a master of naval and maritime science degree from the Chilean Naval War College. He has also published with the U.S. Naval Institute and Center for International Maritime Security.

22. Search for Bozeman Chief of Police narrowed to three candidates

(KULR 24 Feb 21) ... Meridith Depping and Noah Schmick

The search for the City of Bozeman’s next Chief of Police has been narrowed down to three finalists... Deputy Chief Baumstark received his bachelor’s degree from Virginia Tech. He has advanced leadership training through the Professional Executive Leadership School from the University of Richmond Business School, the Key Executive Masters Certificate Program from American University and the Fusion Center Leadership Program from the **Naval Postgraduate School**. Deputy Chief Baumstark is also a graduate of the FBI National Academy.

23. Capt. Jay Clark Named 2021 Stars and Stripes Black Engineer of the Year

(DVIDS 25 Feb 21)

Capt. Jay Clark, commander, Destroyer Squadron (DESRON) ONE, received the Stars and Stripes Black Engineer of the Year (BEYA) science, technology, engineering and mathematics (STEM) award during a virtual awards ceremony at the annual BEYA STEM conference held Feb. 11-13... Clark was raised in Pembroke, Ga., and is a 1995 graduate of Morris Brown College where he received a Bachelor of Science degree in Computer Science and received his commission through Morehouse Naval ROTC in Atlanta. He earned a Master’s Degree in Systems Engineering from the **Naval Postgraduate School** and another Master’s Degree in National Security and Strategic Studies from the Naval War College.

24. Championing Technology Also Involves Difficult Culture and Process Changes

(Signal 26 Feb 21) ... Kimberly Underwood

During a career spanning 34 years that involved applying information technology (IT) for the military, one of the biggest hurdles was advancing change. It is not only the challenge of providing effective and cybersecure new solutions, but is the combination of that while altering the culture and shifting processes for the better, said Vice Admiral Nancy Norton, USN... Armed with two advanced degrees, a master of science in computer science from the **Naval Postgraduate School** and a masters of arts degree from the Naval War College, Adm. Norton built the knowledge needed to steer the necessary communications, networking and digital solutions to the Defense Department—aided also by her operational experience. Among other positions, she was the director of the Command, Control, Communications and Cyber Directorate for the Pacific Command; director of Warfare Integration for Information Warfare; and the vice director at DISA.

25. From refugee to decorated Army officer, Col. Varman Chhoeung now leads the Presidio

(Signal 26 Feb 21) ... Kimberly Underwood

Col. Varman Chhoeung doesn’t remember much of his life before the airplane ride that took him and his parents from the refugee camps of Thailand to San Francisco in 1981. He was 4 years old at the time. When he was 18 months old, his parents left everything behind in Cambodia, fleeing the violence there... This isn’t Chhoeung’s first time in Monterey: From 2008 to 2010 he attended **the Naval Postgraduate School**; his son, now a senior at Monterey High School, started kindergarten then in Monterey. “It’s kind of neat to come back full circle,” Chhoeung says.

26. Thank You For Being A Friend: NATO, Iraq And The Benefits Of The Alliance – Analysis

(*EURASIA Review 28 Feb 21*) ... USA Maj. Tim Ball

After a recent meeting of defense ministers in Brussels, NATO Secretary-General Jens Stoltenberg announced that the Alliance would expand the size of its security training mission in Iraq, increasing troop levels from 500 to 4,000. The move comes less than a month after the inauguration of President Joseph Biden and signals the continued effort to repair the relationship between the United States and the Alliance after four years of degradation during the Trump administration. While NATO has provided continuous contributions to operations in Iraq since 2004, it suspended training activities in January 2020 after the unilateral decision by the United States to assassinate Iran's Quds Force Commander Qasem Soleimani outside the Baghdad Airport... About the author: Major Tim Ball is a U.S. Army Special Forces officer. He has served in 10th Special Forces Group (Airborne) and at NATO Special Operations Headquarters, with multiple tours in Iraq and assignments throughout Europe. Major Ball holds a BA in Political Science from Texas A&M University, and an MS in Defense Analysis (Irregular Warfare) from the **Naval Postgraduate School** in Monterey.

ENGINEERING:

27. NAVFAC Southwest Engineers and Designer of the Year Recognized During National Engineers Week

(*DVIDS 23 Feb 21*) ... Mario Icarl

Naval Facilities Engineering Systems Command (NAVFAC) Southwest's Dr. Michael Fraser was recognized as 2021 NAVFAC Southwest Civilian Engineer of the Year, CDR Peter Benson was recognized as 2021 NAVFAC Southwest Military Engineer of the Year, and Richard Suda was recognized as 2021 NAVFAC Southwest Designer of the Year during a NAVFAC Southwest virtual Engineers Week Event held Feb. 23... Richard Suda, NAVFAC Southwest senior architect, provides mentoring and guidance to junior architects. He has recently focused his skills and expertise on the high profile MQ-25 and MQ-40 unmanned aircraft program at Naval Base Ventura County, as well as the \$400 million upgrade and modernization of the **Naval Postgraduate School Campus at Monterey**. He consistently provides design and technical skills to ensure all projects are of the highest quality within the budgetary and schedule constraints. Suda is also the subject matter expert on Anti-Terrorism Force Protection for DCBL providing guidance for all Marine Corps projects. Suda volunteers with several organizations outside of his official duties which include being a scout leader, a trustee for the Knights of Columbus, coaching Little League baseball, and sitting on the advisory board for the Fall Festival.

UPCOMING NEWS & EVENTS:

March 2: [Seapower Conversation: Quantum Communications & Computing](#)

March 4: ["Ask Me Anything" session with President Rondeau](#)

March 26: [Winter Quarter Virtual Graduation Ceremony](#)



COMMENTARY:

A Unique Take on NPS: Important Then, Critical Today

(USNI Feb 21) ... Dr. Wayne Porter, Captain, U.S. Navy (Retired)

Fifteen years ago, the Naval Postgraduate School (NPS) was spared from the Base Realignment and Closure Study for good reasons. The school is even more important and relevant to naval and national security today.

In March 2005, Admiral Michael Mullen, then Commander, U.S. Naval Forces Europe and Commander, Allied Joint Force Command summoned me to his office. He had learned I had two master's degrees from the Naval Postgraduate School, and he had a special project for me. "I want you to write a paper I can give CNO [Chief of Naval Operations Admiral Vern] Clark to help get NPS off the BRAC list." He was referring to the Congressional Base Realignment and Closure study then underway to save money by eliminating unnecessary or redundant military installations across the country.

Then-Acting Under Secretary of Defense (Acquisition, Technology, and Logistics) Michael W. Wynne's 4 January 2005 memorandum, "2005 Base Closure and Realignment Selection Criteria," identified the criteria by which to measure "Military Value." They were:

1. The current and future mission capabilities, and the impact on operational readiness of the total force of the Department of Defense, including the impact on joint war fighting, training, and readiness.
2. The availability and condition of land, facilities, and associated airspace.
3. The ability to accommodate contingency, mobilization, surge, and future total force requirements at both existing and potential receiving locations to support operations and training.
4. The cost of operations and the manpower implications.

Other effects of base closure considerations also were cited, among them: the extent and timing of potential costs and savings; the economic impact of closure on existing communities in the vicinity; the ability of infrastructure of both the existing and potential receiving communities to support forces, missions, and personnel; and, the environmental impact. So, cost savings was only one consideration in deciding whether to close or realign an installation. This is where I focused my eventual "cost-benefit" analysis. As I would later write, "In the case of the Naval Postgraduate School, to make a closure decision primarily on cost considerations is to miss the very essence of what the school represents operationally, academically, and intrinsically to the Navy and to the Department of Defense."

Over the next several days, I did much research online and had many long-distance exchanges of information, data, and insights with the staff of then-NPS Provost Dr. Dick Elster in Monterey. As the analysis and narrative began to take shape, I briefed Admiral Mullen on the direction I was taking. He made a few adjustments and told me to proceed.

Two weeks later, I was again summoned to the admiral's office in Naples. He said, "Congratulations." Admiral Clark had used the paper to make a successful argument for Congress to remove NPS from the BRAC list. The arguments CNO Clark used 15 years ago are still valid and worth repeating.

What Remains the Same?

The 2005 Naval Postgraduate School White Paper was divided into several sections. Each one addressed a unique aspect of NPS that contributed to the school's "military value." The opening section, an overview, was preceded by, "The ability of our officer and enlisted leaders to anticipate and manage the challenges of tomorrow is only limited by our foresight today." The assertion made here, was that:

NPS may be one of our best tools to ensure the alignment of advanced operational concepts and technologies among the Department of Defense, Homeland Security, Inter-agency, and international military partnerships. Rather than considering closure of NPS, we should be focusing on how to better maximize the return on our investment. These rewards could well include our Navy's preeminence in educating and retaining the most technologically advanced war fighters in the world, both officer and enlisted, and our military's assured superiority in Joint and coalition warfare for generations to come.



Fifteen years later, having conducted research and taught in both the Graduate School of Information and Operation Sciences and the Graduate School of Engineering and Applied Sciences, as well as in the Center for Homeland Defense and Security, and having served as advisor on many theses and Capstone research projects in each, I am convinced more than ever this remains true.

The next section of the 2005 White Paper started with “We can’t afford to build tomorrow what we have today!” This section focused on the establishment in 1951 of the Monterey, California, campus and relocation of the Naval Postgraduate School. At that time, the campus covered 135 acres along the Pacific Coast Highway and was purchased for \$660,372 as part of a 627-acre buy. By 2005, the NPS holdings included 620.5 acres that originally cost \$1.3 million. This included classrooms, research facilities, laboratories, ballistics and radar test facilities, UAV flight ranges, and ocean spaces. The school’s proximity to other leading academic and research institutions—including Stanford University, UC Berkeley, UC Santa Cruz, the Defense Language Institute, and Lawrence Livermore Laboratory, as well as to Silicon Valley, the world’s center of technological innovation—make its location unique. The current value of this real estate alone would be difficult to assess, and its intrinsic value in drawing talented faculty and students alike, while showcasing the American dream for our international students and partners, is incalculable.

“In attempting to compare apples to apples we miss the core differences.” This bad pun introduced the White Paper’s most lengthy, data-driven, and perhaps most effective discussion. An August 2000 Proceedings article, “The Naval Postgraduate School: It’s About Value,” provided a comparative analysis of costs associated with a degree from NPS to a “similar degree” from a comparable, tier one civilian university. I went on to explain that, “... ‘similar’ though the degrees may be when displayed on a sheepskin, and surely just as challenging in their pursuit, a civilian course of study almost certainly does not represent the same tailored, defense-centric, militarily career-enhancing curriculum provided by NPS.” This was followed by addressing a crucial flaw in any such cost comparison that failed to address the Educational Skills Requirements (ESRs) dictated by the Secretary of the Navy, the Joint Professional Military Education courses that enabled officers to satisfy both their master’s degrees and their joint military education requirements while at NPS, nor the additional coursework required to ensure the student appreciates the military relevance of the academic material and can apply that knowledge immediately upon rejoining the operational force.

“The truth is that many NPS students would not gain entry into Tier One schools whose entrance criteria are not meant to consider the attributes of a combat warrior with proven leadership skills, capable of managing complex weapons systems (a review by civilian universities of 300 Navy officers enrolled at NPS revealed they would admit only 12% directly and 13% with additional courses).”

Further, few if any tier one graduate schools would accept students with non-technical undergraduate degrees into technical master’s programs in the numbers the Navy required. I since have heard Admiral Mullen, a Distinguished Graduate of NPS in Operations Research, remark on multiple occasions that he probably would not have been accepted into another graduate program as a lieutenant!

Before comparing the cost of a master’s degree from NPS with a similar degree from a tier one university, it was necessary to explain the differences in academic years, total credit hours required in the two systems, and the average number of months required to complete a degree. Unlike most tier one universities working on a fixed academic calendar with new student enrollment limited to the fall only, the Naval Postgraduate School works on a quarter system and admits students into its broad array of curricula year-round. As stated in the 2005 White Paper,

“Bearing operational demands in mind, particularly during this time of war, this loss of scheduling flexibility would have a significant impact on the number of military students capable of accommodating such a restrictive admission policy.”

But it was the “academic op tempo” at NPS, when compared with most civilian graduate schools, that drove the most significant differences in cost:



At NPS, the academic school year is based on four, twelve-week quarters consisting of 16 classroom hours per week. Although academic calendars vary at civilian universities, typically students attend classes 13 hours a week for 32 weeks of the year, and may attend a ten week summer term for seven hours a week. This amounts to approximately 58% more student-faculty contact hours per academic year at NPS than at a typical civilian university.

In other words, an NPS student could complete the 96 credit hours required to earn a degree in 18 months versus the 24 to 28 months that would probably be needed at a civilian university. That translates into six to ten months of additional tuition and a student's salary to be covered by the government, while the servicemember attends classes rather than returning to an operational assignment. Even considering the costs associated with an NPS student who might need an additional 4.8 months on campus for transition and refresher courses, beyond the 18 months to earn the degree, the total tuition and salary costs would still be less at NPS. Furthermore, the NPS student would have completed JPME requirements for Joint Certification, a defense-related thesis, and would have met all educational skills requirements in under two years.

But there was another question that needed to be addressed: "How much would be saved by moving NPS to an existing military installation in a less expensive geographic area?" Keeping the same academic tempo in place, the cost of living and possibly operating costs would be lower. But this is where a purely fiscal analysis fails to consider the intrinsic value as a critical element in any cost benefit analysis.

Operationally and intrinsically, Naval Postgraduate School is a model environment for military academic excellence and a showcase of American values for international students. It should serve as an incentive for our best and brightest officers and enlisted personnel who seek graduate degrees to enrich and enhance their military careers and improve their post-career job prospects as well (in fact, many of these students should be encouraged to pursue defense-related employment upon retirement from the service, thereby bringing their extensive military experience and graduate education into government or private sector defense-related fields). NPS also imprints a strong positive impression of America and our military on international students, many of whom will go on to be senior leaders, with considerable influence, in their own militaries. Fond memories of NPS and the friends with whom they studied there will pay further dividends on our investment through stronger collective security partnerships in the future.

Many of these intrinsic benefits are nonetheless tangible. The idyllic setting of NPS and its proximity to other prestigious universities and centers of innovation attracts research faculty from the finest universities in the nation. Would a less attractive and culturally rich environment leave the same favorable and lasting impression of America on international students and their families? And as for our U.S. students:

"The post graduate experience should be enriching both academically and socially. With the capital investment we have made in Monterey, California, we can offer the finest quality of life for our students and their families as an indication of our commitment to them and to their futures."

They deserve no less and they repay us with so much more.

The White Paper summed up a final intrinsic comparison between distributing our students among various universities and keeping them at NPS as follows:

"While a civilian university might come close to equaling some of the intrinsic value associated with NPS, the vital operational aspects of the curriculum . . . would be missing. Professors would generally not have the extensive defense-related experience common among the NPS faculty, nor could they be expected to demonstrate military applications of their subject matter. Student/faculty contact hours would be less . . . since civilian universities routinely use graduate assistants to teach some graduate level courses, and university research would not be 85% defense related as it is at NPS. The academic environment, while perhaps representing a refreshing change for military students, would tend to take minds away from the challenging operational applications of their course of study. In fact, the opportunity to work with other service members and with international military students would be largely lost. As would the ability to introduce foreign officers to a challenging and enriching glimpse of what their military futures could hold. The return on investment in sending military students to civilian universities . . . would be far less than it is . . . at NPS."



The next section of the 2005 White Paper was introduced as follows:

“If our task was to design a graduate university to prepare America’s young military leaders for the dynamic challenges and opportunities of a vastly different tomorrow it would be joint and international, have diverse defense and inter-agency related curricula, be held to the highest academic standards, taught by professors experienced in advanced military research. It would be cost effective and offer the highest level quality of service needed to draw and keep our best...”

NPS is this and more. The White Paper provided data, details, and examples to illustrate the joint, interagency and national security, international, naval, and transformational nature of the student body, the vast spectrum of curricula, and contributions made by students and faculty research in a time of war.

“Naval Postgraduate School is ideally placed to serve as the centerpiece of a Navy Education Strategy that takes a total force, lifelong approach to serving our Navy family and our nation’s defense needs.”

NPS was subsequently removed from the BRAC list in 2005.

What has changed in the intervening 15 years?

The U.S. military involvement in ground wars in South Asia has greatly diminished, but the threat to U.S. interests and security from peer competitors is on the rise. This was clearly enunciated in the most recent National Defense Strategy that also referred to an erosion of our military advantage, both of which are being addressed through an increase in defense spending. The national debt has gone from \$7.3 trillion (61 percent of GDP) in 2005 to \$26.5 trillion at the end of Q2 2020 (136 percent of GDP). Most recently, a global pandemic has had a dramatic strategic impact on economies and cultural interactions. We have adjusted to new norms of work and are reconsidering the viability of mega cities as well as vulnerabilities in global interdependencies.

Key enabling (or disruptive, depending on who controls them) technologies continue to emerge, contributing to the increasing complexity of today’s strategic environment. These include, but are not limited to:

- AI and Robotics—The development of both specific and general AI will dramatically change warfare (outpacing human cognition and reaction/decision time).
- 5G LTE, IoT—Ubiquitous cyber capabilities will increase anonymity and vulnerability.
- Nano technology, molecular build, additive manufacturing—Will revolutionize logistics, energy, battlefield medicine, others.
- Quantum Encryption, Communication, and Computing—Could ensure reliable cyber security and much greater communications and computing power.
- Energy Sources and Uses—Renewable sources of energy will be integrated with traditional power sources and will affect weapons, propulsion, resupply/recharge, dwell time.

Many aspects of warfare today are vastly more advanced than in 2005, including:

- Complex, Adaptive Combat Systems of Systems—Leveraging artificial intelligence for anticipatory, emergent, self-organizing, and adaptive behavior to changes in the operational environment. This will be necessary for logistics networks, counter swarm capabilities, layered defensive systems, manned and unmanned weapon and sensor integration.
- Hypersonic Weapons—The greatest challenge may be in developing a C4I infrastructure capable of responding without humans in the loop.
- Interconnected Economic and Military Power—Control of vital resources to include minerals, rare earth elements, water, etc; market access, currency valuation, sanctions, and trade wars.
- Ability for Population Centers to be Taken Off the Grid—Entire populations, infrastructures, or economic sectors may be held hostage forcing governments to capitulate.
- Increased Hybrid / Cyber Warfare—To generate havoc, mistrust, plausible deniability.
- Weaponization of Space—More nations now have the ability to place satellites in orbit for military purposes.
- Hybrid or Localized Conflict—Battle zones may increasingly feature littorals, choke points, disputed islands, and EEZs.
- Bastion Defenses linked to the control of critical resources and SLOC access, including the South China Sea and the High North.

Civilian and uniformed leaders have turned over at all levels many times since 2005. This has had an impact on NPS, and under the guidance of President Ann Rondeau, the school has demonstrated great flexibility in shifting focus to the new strategic environment through innovation, increased partnerships with industry and academia, and in helping to define the military's role in great power competition. The school's revised mission statement succinctly asserts:

The Naval Postgraduate School provides defense-focused graduate education, including classified studies and interdisciplinary research, to advance the operational effectiveness, technological leadership and warfighting advantage of the Naval service.

To accomplish this mission, NPS today provides more than 70 STEM-based curricula, and more than 150 labs and all-domain test ranges to enable experimentation, as well as a secure environment to conduct classified research and education. As a new member of the Naval Research and Development Enterprise (NR&DE), the school partners with Department of the Navy Warfare Centers, Naval Research Laboratory, and the Office of Naval Research. Each quarter it pairs students familiar with the most current operational experience and ideas with sponsors and faculty supporting ONR's S&T portfolio, conducting more than \$100m in sponsored research aligned to the curricula and focused on national security. Annually, this results in more than 1,000 research theses and Capstone reports published every year, and between 15 to 20 patents. And unlike most civilian universities and research facilities, there are no Chinese or Russian nationals taught at NPS, all but eliminating the export of our work to the nation's two greatest adversaries.

NPS is fully recognized as a research and education institution with faculty and students working on cutting-edge technologies, analyses, and wargaming. The NavalX Tech bridge at NPS leverages proximity to Silicon Valley and is connected directly to the NR&DE. This covers the spectrum from cyber security to artificial intelligence and machine learning to space sciences and robotics to systems engineering, operations research, combat logistics, national security studies, and the broad spectrum of natural and soft sciences as they apply to warfighting and combat effectiveness. NPS has just inaugurated the Wayne P. Hughes Naval Warfare Sciences Institute under the direction of Professor of Practice Jeff Kline, Captain, U.S. Navy (Retired), to coordinate educational and research responses to fleet and other defense sponsors. This includes an ongoing warfare innovation continuum focused on anticipating warfighting requirements and tactics.

As part of his thesis at NPS, Navy Lieutenant Brendan Geoghegan built a next-generation virtual reality software program in which players or test subjects can immerse themselves as a conning officer on the bridge of a Navy ship. (NPS)

The strategic environment, enabling technologies, and the culture of education have dramatically changed in the past 15 years. The Naval Postgraduate School has not only kept pace but has demonstrated the ability to anticipate and adapt to these changes. This continues to be accomplished through joint, interagency, international, uniformed, and civilian participation on campus and through distance learning, at the master's and doctoral levels. Undeterred by the pandemic, NPS has largely shifted to distance learning and remote access using the school's flexible ".edu" servers and resources. While efficient, distance learning cannot replicate the high quality in-resident student-learning experience I described, nor can it replace the value of learning-by-doing through applied research that every master's student must complete to graduate.

Chief of Naval Operations (CNO) Admiral Mike Gilday visited NPS on 17 December 2020 and declared, "NPS is the Navy's applied research university. There are functions that occur here that [the Navy] can't get anywhere else in the world. The surplus of experience and knowledge partnered with the ability to work on classified material on a secure campus makes NPS an invaluable asset to the fleet."

NPS is not a cost to minimize, it is a capability to optimize. The strategic environment, enabling technologies, and the culture of education have dramatically changed in the past 15 years. NPS has not only kept pace but has demonstrated the ability to anticipate and adapt to these changes. This continues to be accomplished through joint, interagency, international, uniformed, and civilian participation on campus and through distance learning, at the master's and doctoral levels. NPS provides relevant solutions and graduates warrior-leaders prepared for the contemporary battlespace. They are the "weapon system" we deliver.



Now, more than ever, we must leverage the defense-focused research and graduate education uniquely catalyzed at NPS to deliver capabilities for warfighting advantage: technologically and intellectually. Important then, critical today, NPS is unlike any other graduate institution in the country: responsive, interdisciplinary, applied, innovative, classified, and secure.

[A Unique Take on NPS: Important Then, Critical Today | Proceedings - February 2021 Vol. 147/2/1,416 \(usni.org\)](#)

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Liberals and security hawks can find common green ground

(Financial Times 26 Feb 21) ... Rana Foroohar

Defence hawks and liberal progressives do not typically make easy political bedfellows. And yet there is an issue where their interests may align almost perfectly: climate change.

President Joe Biden has once again made this most pressing of global problems an American priority. Addressing it involves bolstering the resilience and security of energy infrastructure, improving skills training and education, investing in high-tech manufacturing, and moving business models away from “efficiency” and towards “resiliency”.

All of these things appeal to the type of leftwing voters who support Democratic representative Alexandria Ocasio-Cortez, populariser of the idea of a “Green New Deal”. But they also appeal to security-conscious conservatives worried about the rise of China. Both groups are interested in connecting the dots between sustainable energy, jobs, and economic and geopolitical security. What if there was common ground on how to do so?

That idea is being put forward by a group of Navy technologists and scholars who recently came up with a proposal for a national resilience strategy that builds on the overlapping interests of these two camps. It evokes some of the bipartisan co-operation that happened during the great-power competition of a half-century ago.

In the run-up to the second world war, public and private sector actors worked together on economic strategy geared towards preparing for battle. Bill Knudsen, chairman of General Motors, was tapped by Franklin Roosevelt to lead the retooling of civilian industry for wartime production. The production lines that were created not only helped win the war but also increased productivity and bolstered growth and competitiveness in the postwar period.

In the wake of a new geopolitical challenge from China, pandemic-related supply chain shortages, and increasing fallout from climate change, Republicans and Democrats alike fear that decades of focus on economic efficiency rather than resiliency has left the US ill-prepared to cope with national disaster.

At the same time, clean energy presents the clearest path to a more sustainable economic model. History has shown that productivity and jobs tend to grow in tandem when government underwrites private sector involvement in a new, paradigm-shifting technology — like railroads, or the internet.

The transition to clean energy is the obvious opportunity today, and it is not only environmentalists who think so. Defence officials would love to see the US lead in areas such as lithium battery technology, which powers clean cars and unmanned military vehicles. That would require investments in the kinds of high-tech research and development and worker training programmes that progressives advocate for. It might also require protecting domestic supply chains in strategic areas such as computers and electric cars. Last week, Biden signed an executive order mandating a review of where the US obtains semiconductors, rare-earth minerals, large capacity batteries and some pharmaceuticals.

Such measures could create new middle-class jobs, something that both sides are interested in. Progressives have ideological reasons: they want to see the balance between capital and labour tip more towards the latter; defence hawks see national security and economic security as indivisible. “We look at diplomacy, the military, the economy and information as different elements of national power,” says **Jeff Kline, a professor at the Naval Postgraduate School in Monterey, California**. “You can’t separate them.”



While conservative, such a view reflects the kind of political realism espoused by military theorists such as Carl von Clausewitz rather than the laissez-faire economics of David Ricardo. It also tracks the enthusiasm for industrial policy and stakeholder capitalism increasingly espoused by parts of the pro-labour left and the security-conscious right.

Defence scholars have long been fans of economic resiliency. But the 2008 financial crisis, the Covid pandemic and a number of smaller crises have convinced people across the political spectrum that the public and private sector need to work more closely together. The goals include re-mooring wealth and prosperity in local communities and solving the most complex — and potentially rewarding — problems of the day.

Imagine a national dialogue in which business leaders, security experts, educators, labour advocates and others came together to find ways to transition to clean energy, while also bolstering jobs, security and relationships with allies. They would want to explore how the public sector could best send signals to private investors to enable funding to flow to the right places. The discussion should encompass how best to connect the needs of job creators and educators of a 21st-century workforce.

The challenge would be national. But given the size and diversity of the US, solutions should be local, coming from the ground up and by necessity involving individuals from all over the political spectrum. “The overlap between social priorities and defence priorities is actually quite compelling,” says Garth Jensen, director of innovation at the Naval Surface Warfare Center in Maryland. After years of division, perhaps America can find some productive common ground.

[Liberals and security hawks can find common green ground | Financial Times \(ft.com\)](#)

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COVID-19 UPDATE:

Presidio of Monterey helping county to reach herd immunity through DoD vaccinations [Video Interview]

(KSBW 24 Feb 21) ... Caitlin Conrad

The Presidio Monterey is moving at a constant clip through its COVID-19 vaccine distribution plan, each shot bringing military members, and the community as a whole, closer to herd immunity.

At the Weckerling Center on the Defense Language Institute Foreign Language Center (DLI) in Monterey the United States Army is vaccinating about 200 people a day five days a week. At the current pace, base command estimates it will be able to vaccinate everyone in its care in the two months.

"We're doing our part to help out, not only the military beneficiaries and DoD civilians but also Monterey County as a whole getting at that herd immunity," said Colonel Zack Solomon.

Solomon is the commander of the California Medical Detachment and Director of Health Services at the Presidio of Monterey. CAL MED supports DLI, U.S. Army Garrison Presidio of Monterey, the **Naval Postgraduate School**, Naval Support Activity Monterey, the Fleet Numerical Meteorology and Oceanography Center and the U.S. Coast Guard Station Monterey.

Herd immunity is when enough people in a community are vaccinated, making the spread of the disease from person to person unlikely. Scientists predict herd immunity for COVID-19 will be reached when 70-90% of the population is immunized. The entire vaccine eligible population under CAL MED is about 4% of Monterey County's population.

All told there are about 18,000 people under the care of CAL MED who are eligible to receive DoD vaccines, including military personnel, civilian staff, military family members and military retirees.

Similar to counties across the state, the DoD is vaccinating people using a phased approach with Phases 1a, 1b, 1c and Phase 2. Dissimilar from counties, the army is moving more quickly through the phases and at the Presidio of Monterey they're already in Phase 1c.



Department of Defense

To date, the Presidio of Monterey has vaccinated about 2,000 people. Each dose comes from a DoD allocation handed down by the Army and none of those doses are being tracked by the Monterey County Health Department.

"We're not tracking that and I don't know that it is even tracked in the state's immunization registry," said public health officer Dr. Edward Moreno when asked about military vaccinations.

Moreno went on to explain that the county uses the California Immunization Registry System to track vaccines administered and only doses coming from the state allocations are being entered in CAIRS. This means the total number of people being vaccinated in Monterey County is much higher than what the county is reporting. Right now the tally sits at almost 50,000 single doses administered and recorded on CAIRS in Monterey County.

The Veterans Administration is also using federally allocated doses to vaccinate veterans and those shots are not being recorded either. At this time it remains unclear if vaccines administered through federal pharmacy programs are also being left out of the county.

The Presidio of Monterey is tracking doses on its end, logging them in the military health system.

"Every single one goes in there and then for our service members, it automatically updates our readiness databases, so the Army and other services can track the readiness of the military population," said Solomon.

Without adequate tracking at the county and state level, it will be difficult to determine when a county has achieved herd immunity.

Former Defense Secretary Leon Panetta weighed in on the role of the military should be playing in distributing vaccines at a press event on Monday. Panetta said distributing vaccines should not be left up to states and counties.

"This is too important, it is too important and when it comes to logistics having been in the Defense Department the military is the best equipped to deal with the logistics in terms of getting it out there," said Panetta.

The former Defense Secretary said the U.S. made a mistake in not taking a national approach to combat pandemic but said it is not too late to implement one.

"I think that ultimately the military should be playing a larger role in making sure that we distribute this vaccine to all Americans and do it efficiently and effectively," said Panetta.

To date, about 30% of military members and DoD staff worldwide have declined COVID-19 vaccines. Presidio Commander Colonel Varman Chhoeung said the declination rate in Monterey is about the same. The option to decline for military members may go away if the Food and Drug Administration gives full use approval to one of the COVID-19 vaccines currently authorized under emergency use approval.

DoD dose allocations from the Army to bases and installations are based on the availability of vaccines and the population that needs to be vaccinated. Regardless, having a military base or installation is undoubtedly advantageous to communities as they work to slow the spread of covid-19.

"The way that I look at is every vaccine that comes from the federal distribution that goes into an arm is one vaccine that does not come from the Monterey County stock, that is one person who is vaccinated and that is one more person towards us reaching herd immunity as a community," said Chhoeung.

[Presidio of Monterey helping county to reach herd immunity through DoD vaccinations \(ksbw.com\)](https://www.ksbw.com/news/presidio-of-monterey-helping-county-to-reach-herd-immunity-through-dod-vaccinations)

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Presidio of Monterey working to get COVID-19 vaccine to 18K through CalMED

(Monterey Herald 26 Feb 21) ... James Herrera

The Presidio of Monterey began inoculating eligible personnel with the COVID-19 vaccine earlier this month and has already hit about 2,000 shoulders with Army medical leaders encouraging soldiers to be part of the solution to end the virus.



“We directly support a population of 10,000,” said Lt. Col. Zach T. Solomon, commander of California Medical Detachment. “However, we also offer the vaccine to other beneficiaries, such as retirees, if we have the vaccine available. This group adds another 8,000. Total population that we may support is 18,000.”

The California Medical Detachment at the U.S. Army Garrison Presidio of Monterey is conducting the COVID-19 vaccination clinic out of the Weckerling Center at the Presidio.

Beneficiaries include 18,000 eligible military, Department of Defense civilian, retiree and Tricare health care program enrollees in the Monterey area. The clinic also supports operations from 130 miles north in Concord and 80 miles south in King City, currently processing about 200 shots a day.

California Medical Detachment supports the Defense Language Institute Foreign Language Center, U.S. Army Garrison Presidio of Monterey, **Naval Postgraduate School**, Naval Support Activity Monterey, Fleet Numerical Meteorology and Oceanography Center, U.S. Coast Guard Station Monterey and Fort Hunter Liggett in southern Monterey County.

In a virtual town hall earlier this week, top Army medical leaders encouraged soldiers to get vaccinated as soon as possible. The COVID-19 vaccine is currently voluntary for them but following full approval from the Food and Drug Administration, or if President Joe Biden waives the option for soldiers to receive it, the vaccine may become mandatory, just as flu shots are.

During the town hall, Dr. Steven Cersovsky, deputy director of the Army Public Health Center, said that getting vaccinated protects someone else who might be at risk.

“As long as you remain unvaccinated, you can become infected and pass it along to other people,” said Cersovsky. “You’re part of that transmission chain.”

Vaccines for COVID-19 have emergency use authorization by the Food and Drug Administration, which makes them available for public health emergencies and outside of a research study. Though the vaccines are not yet approved, it is the usual first step for a new vaccine.

The COVID-19 vaccines from Pfizer and Moderna have been granted emergency use authorization and require two doses.

On Friday, the Vaccines and Related Biological Products Advisory Committee met to discuss emergency use authorization for the Johnson & Johnson vaccine, which would expand vaccine supply and voted unanimously in favor of authorizing the vaccine. Formal authorization by the Food and Drug Administration is expected on Saturday. It will be the third vaccine made available in the fight against the coronavirus and is the first to require one dose. Shipments should begin to go out shortly after final authorization.

At the town hall, senior leaders urged soldiers to trust the science, and the Army, because that was the biggest way to ensure overall readiness.

“We are committed to doing all in our power to act as a force multiplier in this ongoing fight to protect the community,” said Solomon.

Supplies of vaccine continue to be limited, but the allotment to the California Medical Detachment comes directly from the manufacturer and do not count against Monterey County’s allotment of vaccine just as the VA Palo Alto Health Care System’s supply to the Major General Gourley Outpatient Clinic in Marina is counted separately from the county supply.

A nurse at the California Medical Detachment draws a dose of the COVID-19 vaccine. (Courtesy of the Presidio of Monterey)

Just as the Department of Defense is working to inoculate a population of 18,000 through the California Medical Detachment at the Presidio of Monterey, the Department of Veterans Affairs is actively making the vaccine available to an estimated 17,500 Monterey County veterans, 65% of whom have not connected to the VA for medical or other benefits.

So far, 1,000 veterans 65 years and older have received their initial vaccination at the Gourley VA Clinic at two clinics held in the past few weeks.

“VA Palo Alto Health Care System is providing an additional 400 Moderna vaccination doses to the (Major General) Gourley Clinic to be administered Friday, March 5,” said Monterey County Military and Veterans Affairs spokesperson Jack Murphy.



None of the VA clinics have been COVID-19 walk-in vaccination sites. Monterey County veterans 55 years and older already enrolled in the VA Palo Alto Health Care System are eligible for receiving the vaccine. Eligible veterans should call 650-496-2535 to register for the next vaccination clinic scheduled for next week.

[Presidio of Monterey working to get COVID-19 vaccine to 18K through CalMED – Monterey Herald](#)

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A third vaccine just got approved. Does that mean more vaccines will soon be available?

(Salon 27 Feb 21) ... Matthew Rozsa

On Friday, a Food and Drug Administration (FDA) advisory committee authorized Johnson & Johnson's one-shot coronavirus vaccine, determining it to be safe and effective. This makes it likely that the FDA will allow the vaccine to be distributed throughout the United States potentially as early as Saturday. (It has not yet done so at the time of this writing.) When it does this, Johnson & Johnson's COVID-19 vaccine be the third vaccine allowed for distribution the United States, as well as the first designed to be given in one dose and to not utilize new mRNA technology.

This, naturally, raises the one question that is on everyone's mind: Will a third vaccine on the market mean more supply — and thus, a quicker end to the pandemic?

The answer to that question, like so many others involving the novel coronavirus, is mired in complexity and therefore uncertainty.

"It's possible that there could be some bottlenecks in distribution, but we don't really know yet as to whether or not they will actually materialize or not," Dr. Rob Handfield, a professor of supply chain management at North Carolina State University, told Salon. (Handfield and the other parties interviewed by Salon for this article spoke with the publication prior to the FDA's announcement.) "The problem is we don't really know yet where those bottlenecks will be. There's a good chance that there will be our distribution bottlenecks that potentially will occur."

There are a number of ways in which vaccine distribution can go awry. Indeed, we have already seen some of them play out: Local governments throughout the country have come up short on their vaccination goals because of poor planning. Vaccines have often been wasted or given to non-prioritized individuals because people who are scheduled to get their shots don't show up. The public and private sector has struggled to coordinate the logistics of an effective response, leading on many occasions to inefficiency and even chaos.

Yet there are also manufacturing issues that can occur, something that is easier to understand when you look at how vaccines are manufactured.

If you were to step inside the different factories that create vaccines, you would see something very different from the kinds of factories that mass produce cars or toys. Certain facilities exist to create the vaccine's raw ingredients, including materials for the cell cultures that will help grow the vaccine's antigens (often egg products) and inactivating ingredients like formaldehyde which weaken or kill the antigens before they are injected into the body. Then the raw materials are combined with absolute precision and inserted into sterile vials or syringes. After that, they are packaged, shipped and distributed, often with extra technology to make sure they don't go bad (for instance, the Pfizer and Moderna mRNA vaccines need to be constantly stored at very cold temperatures).

These processes require expensive and often complex machinery: stainless steel vats, massive ultracold freezers, incubators, specialized machinery like centrifuges, and traditional scientific laboratory equipment like microscopes and glassware. You need the vials and syringes themselves, of course, and trays for transporting materials between different factory locations when necessary. You need the equipment for people to actually put the vaccines in their bottles on an assembly line and dry ice to keep vaccines at the appropriate temperatures once they're ready to go.

With all of those variables, logistical difficulties can occur any step of the way. Even a seemingly small hiccup can cause a delay.



"The bottleneck is not workers — it's actually validating the new equipment that's going in to add to these production lines, and adding production lines is not simple," Handfield explained. "You have to validate them, you have to get FDA approval, they have to be inspected, they have to be tested. You're producing something that's being injected into human beings on a massive scale, so you have to be darn sure that the vaccine that's being manufactured meets all of these quality requirements." As a result, there are multiple tests and stages of validation that the different equipment and materials used to manufacture vaccines have to go through.

"This just takes time," Handfield explained. "You can't do it as quickly as you'd like." Indeed, Handfield said that the whole process usually takes many years; it is extremely impressive that pharmaceutical companies have gotten as far as they have as quickly as they have.

Other factors can also complicate the process. There can be supply chain shortages for everything from syringes and vials to the necessary raw ingredients. There can be unforeseen production issues and manufacturing delays, as something random can go wrong while scientists carefully create their complex biological products. Indeed, the unexpected problems can occur even before the vaccine have been manufactured. For instance, several pharmaceutical companies are purchasing their vials from a manufacturer, SiO2 Materials Science, that did not originally create airtight vials because they did not need to be airtight. Since the medicines will spoil if they come into contact with the air, the vials had to be modified using state-of-the-art chemical processes that hermetically seal them in. Although they have solved that problem, and SiO2 Materials Science is doing its best to increase production to meet demand, as of last month they still found that demand exceeded supply.

There are also potential problems with vaccine misinformation that may affect distribution. People who wrongly believe that the government will somehow track or harm them through the vaccination process could make it more difficult to track who has been inoculated.

"People are also really concerned in this country with the idea of being tracked by the government, so this will play into how we communicate with them," **U.S. Air Force Major Daniel J. Finkenstadt, an assistant professor in the Graduate School of Defense Management at the Naval Postgraduate School**, said at a North Carolina State webinar in December. "How do we communicate that tracking through a personalized application is the safest bet for the whole country and for individuals — and that you're not giving up your liberties or your privacy by using these?"

All of that said, this does not mean that it isn't good news that the FDA is likely to authorize the Johnson & Johnson vaccine. As Stanford University infectious disease specialist Dr. Philip Grant told Salon by email, consumers do not have to worry about there being a shortage of facility to manufacture the vaccines because "each of the companies with approved vaccines have independent non-overlapping pipelines producing vaccine so a new vaccine approved will add to the overall supply." What's more, generally speaking vaccine companies had the foresight to make advance deals with the contract manufacturers whose facilities would be used to create the vaccines, so as Handfield told Salon, it is unlikely that either Johnson & Johnson or other large pharmaceutical companies will need to worry about not having buildings to manufacture vaccines. (By contrast expanding capacity to meet increasing demand, he noted, could take time.) He also pointed out that Johnson & Johnson's vaccine could be easier to distribute because it only requires one shot.

"Getting them to come back for a second shot maybe is more problematic under these conditions," Handfield explained. "If it's a one-shot vaccine, which it is, that works better for these mass vaccinations. It also works better when you start going into rural communities where you might have a mass vaccination, say, to a church local church on a Sunday, or you might get community leaders to bring people together on a one-time basis. It's a one and done, which is useful for these diverse populations where it may be difficult to get people back for a second shot."

[A third vaccine just got approved. Does that mean more vaccines will soon be available? | Salon.com](#)

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RESEARCH:

Naval Postgraduate School and Xerox Collaborate to Advance Additive Manufacturing Solutions

(Navy.mil 1 Mar 21) ... Matthew Schehl

(NPS.edu 1 Mar 21) ... Matthew Schehl

In January 2021, the Department of Defense published its first-ever Additive Manufacturing Strategy to “provide a shared set of guiding principles and a framework for [additive manufacturing] technology development and transition to support modernization and Warfighter readiness” across the military.

Additive manufacturing (AM) – more commonly known as 3D printing – is the computer-controlled process of creating three-dimensional objects by “printing” material, layer upon layer, to build up an item to the finest of detail. Whether creating a child’s toy or a sophisticated machine part, it is economical and efficient, employing a minimum of resources with a minimum of labor and time.

The versatile technology has already significantly impacted industrial production as the world shifts from analogue to digital technology, and is increasingly being seen across the Department of Defense (DOD) as a powerful and versatile tool providing technical advantages across a range of defense applications.

Already working on this, NPS recently established the Center for Additive Manufacturing (CAM), a campus-wide collaborative effort to coordinate research and advance 3D technology. Under the umbrella of CAM’s Naval Additive Manufacturing Enterprise 2030 (NAME 2030) initiative, NPS explores every aspect of additive technology and the possibilities it presents the Navy.

One of the most promising of these is to better allow the supply of forward-deployed forces.

A key element of NPS’ applied research in this area is the recently launched strategic collaboration between Xerox and NPS focused on AM research, which has the potential to dramatically transform the way the military supplies forward-deployed forces.

As part of a Collaborative Research and Development Agreement (CRADA), NPS was the first to receive an installation of the Xerox® ElemX™ Liquid Metal Printer on the university campus in December. The new ElemX will provide NPS faculty and students hands-on exploration of new ways the technology can deliver on-demand 3D printing of metal parts and equipment from ship or shore, anytime or anywhere.

“The military supply chain is among the most complex in the world, and NPS understands first-hand the challenges manufacturers must address,” said Xerox Chief Technology Officer Naresh Shanker. “This collaboration will aid NPS in pushing adoption of 3D printing throughout the U.S. Navy, and will provide Xerox valuable information to help deliver supply chain flexibility and resiliency to future customers.

“The world is moving into an on-demand economy where you only pay for what you use, when you need it,” continued Shanker. “The ElemX can have a tremendous impact, not just for the military but also for the manufacturing world in advancing this vision. From saving on transportation, warehousing, and inventory carrying costs to reducing carbon emissions, the potential impacts on business and society are very exciting.”

With access to this latest AM technology, NPS faculty and students will use the ElemX to conduct thesis research to develop new capabilities for the Navy and Marine Corps.

“As the Department of the Navy’s applied research university, NPS combines student operational experience with education and research to deliver innovative capabilities and develop innovative leaders with the knowhow to use them,” said NPS President retired Vice Adm. Ann Rondeau. “This collaborative research effort with Xerox and the use of their 3D printing innovations is a great example of how NPS uniquely prepares our military students to examine novel approaches to create, make, prototype and manufacture capability wherever they are.”

“From the age of sail to the nuclear era, Sailors have been fixing things at sea so they can complete the mission,” she continued. “This partnership is about the strategic ability of the Navy to have Sailors on ships with the capability through creativity and technology to advance their operations at sea. Through collaboration, NPS and Xerox are helping build a Navy for the 21st Century.”



With approximately 250 commissioned ships distributed around the globe, the logistical demands of the Navy are enormous and require a complex web of support systems – each with their own individual requirements – to provide a steady stream of equipment and maintenance parts. A broken or missing part worth a few cents can cause thousands of dollars' worth of delays or even mission failure if sailors abroad have to wait for it to be replaced: any given request must go all the way back to the United States, often get sourced, and then flown back out to the requester.

To address these potential supply chain issues, the Navy has for more than two decades pursued AM technology as a means to get sailors the parts they need, both at shore-based facilities and at sea. Producing metal components, however, has been a tricky affair. The process has proven sensitive to humidity, vibrations and shock, and fluctuations in the power supply. It's also dangerous: it uses metal powders which are both toxic and highly explosive. Such conditions are less than optimal for sailors at sea, let alone ashore, ultimately yielding a poor Return on Investment (ROI) in the technology. Until now, that is.

Xerox recently developed a means to print metal components without having to rely on metal powders. Their new ElemX liquid metal printer instead utilizes low-cost, off-the-shelf metal to easily, safely and cost-efficiently print metal components on demand. Operating similarly to an office ink jet printer, the ElemX melts a metal wire down and jets tiny droplets of molten metal, layer upon layer, to form metal objects.

“The great thing about the ElemX is that it uses wire instead of powders to make a part,” noted Tali Rosman, Xerox’s General Manager of 3D Printing. “With liquid metal printing, you don’t need inventory [of bulky materials] and can 3D print on demand; powder-based printers don’t lend themselves to that because of the explosion risk and all the unique requirements. Our technology doesn’t need a special room or hazmat suit to use.”

“We’re thinking about meeting needs ten years out from now, and this is the first metal printing technology that really lends itself to that long-term vision,” she added.

In order to implement that vision, however, Xerox wants to ensure that the printer is ready for prime time.

As soon as they launched their 3D innovation, the company began searching for a partner in the scientific community that could help bring their new technology to market. The printer, they realized, required feedback by actual users in order to make the leap from lab conditions to enterprise-scale use.

They found that in the Naval Postgraduate School.

“We wanted somebody in the scientific community in the front end of innovative technology that could basically pressure test our technology in the field to help us accelerate and scale our roadmaps,” Shanker explained. “We knew NPS could move the needle for us in so many ways: it has a very strong scientific community very much connected into moving advanced sciences into the field.”

“NPS is an entity that could greatly help us find ways to prioritize new use cases and very diverse cases as well as materials fairly rapidly,” he continued. “Working with a real forward-thinking entity like NPS was very attractive.”

Xerox account executives began working with the Navy to make this a reality, and within six months, a CRADA was signed.

“There was no hesitation for us to say we would like to partner with Xerox on this CRADA because we immediately saw the benefit of this technology,” recalled Garth Hobson, Chair of NPS Mechanical and Aerospace Engineering (MAE) department. “This is an all-around win-win situation. Not only will Xerox be learning from us what the Navy’s needs are and how to implement this technology, but it will advance our mission requirements.”

“The bottom line is that the mission of NPS is to educate Naval officers,” he added. “They’ll take this technology into the Fleet.”

The ElemX opens the door to new realms of research possibilities for NPS students and faculty across a multitude of disciplines.

“Having the ElemX at NPS provides us with unparalleled flexibility in terms of the number and variety of tests that we can do to examine this novel technology’s capabilities,” said CAM co-director



Amela Sadagic. “It also provides us with the opportunity to acquire insights into this type of 3D printer’s suitability for Naval operations.”

This exploration spans a range of research activities, from microscopic investigation of different metals and alloys to cost-benefit analysis of acquisition processes, and NAME 2030 has already integrated the ElemX into graduate student curricula, theses and ongoing research projects.

The MAE department is planning a range of efforts to test the quality of 3D printed parts and identify and test specific user cases; the Center for Materials Research will provide analysis, qualification and certification of varying materials; the Computer Science department will focus on training requirements and examine the parameters associated with the technology’s diffusion and large-scale adoption; the Graduate School of Defense Management will study risk management and the diverse range of factors that influence the ROI in utilizing the technology in various operational settings; the Warfare Innovation Continuum will explore how liquid metal printing might transform military operations, from tactical employment to strategic implications.

Additionally, CAM is organizing a series of brown bag lectures to expand NPS student and faculty familiarity with the technology and the specifics of the ElemX.

“Our goal is to make sure that every student who comes to NPS has a basic understanding of the potential that AM technology brings to DOD and their future role of both the practitioners and active supporters of the innovation in their services,” Sadagic noted.

These efforts – and Xerox’s ability to reach the enterprise size and scale of the United States Navy – underscore the potential for the ElemX to reduce dependency on global supply chains for military forces abroad and at sea.

Forward units currently rely on massive, centralized supply depots – what Marines call an “Iron Mountain” – to meet their logistical needs. The inventory at these regional hubs must continuously be monitored and, even when the system functions flawlessly, replacement parts ordered might take weeks to resupply.

The Navy has perhaps the most complex range of replaceable parts out of all the services, according to Hobson, and the vast majority of these – approximately 90 percent – are made of metal. Even if an ElemX wasn’t on every ship, having the printers forward deployed would preclude the need for an immense logistics network stretching all the way to the United States and back again.

“The Fleet doesn’t have too many plastic parts, so I see this technology as key to the Navy’s long-term supply chain issues,” he said. “As far as the Navy is concerned, AM is definitely in the future.”

One of the greatest advantages of the ElemX, however, is perhaps the most intangible: the human imagination.

With access to an ElemX, sailors and Marines would have the means to improvise innovative solutions on the spot; versed in the Art of the Possible, this might mean the difference between mission success and failure, or even life and death.

“Our warfighters out there are very smart,” Hobson said. “Give them that respect and they will come up with their own unique way of using this technology out at sea, given the opportunity.”

The ability to print parts locally, rapidly and reliably would potentially alter the way the military supplies its forces dramatically. In an era of Great Power Competition, the flexibility this affords may prove an imperative: the ability to do things better, faster, safer and more cost-effectively is the lodestar of Fleet readiness.

“This is one way to bend the curve so that the DOD is not spending a thousand dollars for every dollar that a peer competitor spends,” observed retired U.S. Marine Corps Col. Todd Lyons, Vice President of the NPS Alumni Association and Foundation, the non-profit organization which made the strategic collaboration with Xerox possible.

“The NPS Alumni Association and Foundation supported bringing the liquid metal printer to NPS because it will enable soldiers, sailors, airmen and Marines to solve their problems where they are, when problems occur,” he continued. “By donating the right digital tools and the liquid metal printer, all of a sudden we’ve helped transform not just the supply chain, but how the DoD thinks operationally about supplying war.”



For more discussion on AM, tune in to the latest episode of the NPS' video series – Listen, Learn, Lead – with university President retired Vice Adm. Ann E. Rondeau. In the episode, AM experts Drs. Amela Sadagic and I. Emre Gunduz, as well as supply chain expert Dr. Geraldo Ferrer hold an interdisciplinary discussion focused on the future applications of AM toward needs in the Naval domain.

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<https://www.navy.mil/Press-Office/News-Stories/Article/2520288/naval-postgraduate-school-and-xerox-collaborate-to-advance-additive-manufacturing/>

<https://nps.edu/-/naval-postgraduate-school-and-xerox-collaborate-to-advance-additive-manufacturing-solutions>

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DOD Selects NPS to Advance Research in Environmental Resilience and Surprise

(Navy.mil 24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

(NPS.edu 24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

(EurekAlert!24 Feb 21) ... Mass Communication Specialist 2nd Class Taylor Vencill

The Department of Defense's (DOD) Strategic Environmental Research and Development Program (SERDP) has awarded the Naval Postgraduate School (NPS) funding to begin a new research project, titled "Advancing Resilience Theory and Tools to Combat Environmental Surprise," focused on developing new theory and tools to better understand and prepare for future climate events that present challenges to military installation operations.

The Department of Defense's (DOD) Strategic Environmental Research and Development Program (SERDP) has awarded the Naval Postgraduate School (NPS) funding to begin a new research project, titled "Advancing Resilience Theory and Tools to Combat Environmental Surprise," focused on developing new theory and tools to better understand and prepare for future climate events that present challenges to military installation operations.

SERDP is the DOD's environmental science and technology program coordinated in partnership with the Department of Energy and the Environmental Protection Agency, with participation by numerous other federal and non-federal organizations. SERDP invests resources across a broad spectrum of applied research and development.

"Despite best practices for robust design, military infrastructure remains vulnerable to natural disasters, extreme weather and hybrid attacks," said Dr. David Alderson, Director of NPS' Center for Infrastructure Defense and Principal Investigator for the new SERDP-funded project. "The acute impacts of natural disasters like hurricanes, floods, fires and even cold weather pose a constant threat to mission readiness. The events in Texas over the last week demonstrate how something as simple as extended cold can wreak havoc on critical infrastructure systems."

SERDP is allocating \$2.4 million over the next four years to NPS to find solutions to decrease environmental impact, such as natural disasters and climate change on the battlefield. The interdisciplinary project will involve several researchers across the NPS campus, as well as collaborators at Arizona State University.

"This project is important because there is growing recognition within the DOD for the potential of climate-change related events to affect operations, readiness and missions," noted Alderson. "To date, there is a lack of understanding and tools for combating these surprise events."

The research is organized in three integrated thrusts focused on the development of theory and frameworks for measuring resilience, advances in novel tools for simulating surprise, and experiential learning with wargaming and case studies.

According to Alderson, "Guidance for managing military infrastructure currently follows principles of reliability and risk, but these are based on knowledge of past events. They are not suited to adapt to



dramatic change or future surprising events. For this reason, there is a need for new theory that links sensing, anticipating, adapting and learning processes with established theories of surprise from military history and the intelligence community.”

Another key element of the overall project is to develop tools for education and training that provide a platform for investigating how military practitioners respond to surprising climate stressors. A key element of the proposed work is a sandbox-style virtual world called “Dystopia”—initially created at the NPS Center for Homeland Defense and Security (CHDS)—suitable for supporting novel training and wargaming capacities to assess and improve expertise in responding to surprise events.

Alderson noted that this project will provide a platform within DOD education to support NPS students in their master’s theses researching resilience and surprise that should lead to additional direct impact on DOD operations as they graduate and re-enter their respective services.

“This research addresses the explicitly-stated need to improve the environmental performance of DOD, support the long-term sustainability of DOD’s installations and ranges, and significantly reduce current and future environmental liabilities,” said Alderson.

Alderson believes development of the Dystopia tool will also leverage longstanding work at NPS to train experts in homeland security and reach broader classroom and operational settings.

“The broader DOD community will also benefit as the project team will target experiential learning at military officers and government employees,” he noted. “Finally, advances in Dystopia will be made shareable and extensible to enable open-source methods for studying resilience in non-military settings.”

Together, this project aims to advance a deeper understanding of resilience while building the tools and methods to assess and improve resilience across military installations.

[DOD Selects NPS to Advance Research in Environmental Resilience and Surprise > United States Navy > News-Stories](#)

[DOD Selects NPS to Advance Research in Environmental Resilience and Surprise - Naval Postgraduate School](#)

[DOD selects NPS to advance research in environmental resilience and surprise | EurekAlert! Science News](#)

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US DOD SERDP awards funding to NPS for new research project

(Naval Technology 25 Feb 21)

The Naval Postgraduate School (NPS) has been granted funding to work on a new research project called ‘Advancing Resilience Theory and Tools to Combat Environmental Surprise’.

The Naval Postgraduate School (NPS) has been granted funding to work on a new research project called ‘Advancing Resilience Theory and Tools to Combat Environmental Surprise’.

The financing was awarded by the US Department of Defense’s (DOD) Strategic Environmental Research and Development Program (SERDP).

SERDP is coordinated in collaboration with the Department of Energy (DoE) and the Environmental Protection Agency (EPA), alongside other federal and non-federal organisations.

NPS is a fully accredited masters-level university operated by the US Navy.

The project involves creating a new theory and tools to decrease the impact of future climate events on military operation readiness.

NPS Center Infrastructure Defense and Principal Investigator David Alderson said: “Despite best practices for robust design, military infrastructure remains vulnerable to natural disasters, extreme weather and hybrid attacks.

“The acute impacts of natural disasters like hurricanes, floods, fires and even cold weather pose a constant threat to mission readiness. The events in Texas over the last week demonstrate how something as simple as extended cold can wreak havoc on critical infrastructure systems.”



SERDP will allocate \$2.4m for the next four years to NPS to find solutions to overcome the impact of natural disasters and climate change on the battlefield.

The 'interdisciplinary project' will involve research conducted by the NPS campus researchers and Arizona State University collaborators. innovation in your industry?

GlobalData's TMT Themes 2021 Report tells you everything you need to know about disruptive tech themes and which companies are best placed to help you digitally transform your business.

Alderson added: "The broader DOD community will also benefit as the project team will target experiential learning at military officers and government employees.

"Finally, advances in Dystopia will be made shareable and extensible to enable open-source methods for studying resilience in non-military settings."

In 2016, NPS researchers worked on the development of a joint ultra-high-speed navy vessel (JUHSV).

[US DOD SERDP awards funding to NPS for new research project \(naval-technology.com\)](https://www.naval-technology.com/news/2021/02/24/us-dod-serdp-awards-funding-to-nps-for-new-research-project/)

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Naval Postgraduate School to study surprise climate issues in \$2.4M award

(UPI 24 Feb 21) ... Ed Adamczyk

The Naval Postgraduate School was awarded a \$2.4 million grant to study practices to better prepare for future climate events, the U.S. Navy said on Wednesday.

A new research project, "Advancing Resilience Theory and Tools to Combat Environmental Surprise," will focus on developing new theories and tools to better understand and prepare for future climate events as they impact military installation operations.

The award to the school, in Monterey, Calif., comes from the Department of Defense's Strategic Environmental Research and Development Program, which coordinates activities with the Department of Energy and the Environmental Protection Agency, as well as with other government and non-governmental agencies.

Arizona State University will be involved in the four-year program as well.

"Despite best practices for robust design, military infrastructure remains vulnerable to natural disasters, extreme weather and hybrid attacks," said Dr. David Alderson, Director of NPS' Center for Infrastructure Defense.

"The acute impacts of natural disasters like hurricanes, floods, fires and even cold weather pose a constant threat to mission readiness. The events in Texas over the last week demonstrate how something as simple as extended cold can wreak havoc on critical infrastructure systems," said Alderson, who is also principal investigator on the new project.

The project will also include development of tools to address military response to sudden climate change situations.

One, a virtual exercise called "Dystopia," can aid, through training wargaming scenarios, assessment and improvement of expertise in response to surprise events.

"The broader DOD community will also benefit as the project team will target experiential learning at military officers and government employees," added Alderson. "Advances in Dystopia will be made shareable and extensible to enable open-source methods for studying resilience in non-military settings."

[Naval Postgraduate School to study surprise climate issues in \\$2.4M award - UPI.com](https://www.upi.com/news/defense/2021/02/24/naval-postgraduate-school-climate-issues-2.4m-award/)

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Global Underwater Autonomous Vehicle (AUV) Market Will be US\$ 60 Million in 2027 with CAGR 20.4 % – QYResearch Report

(South Florida Theater Review 27 Feb 21) ... James Herrera

Underwater autonomous underwater vehicle is a kind of underwater unmanned vehicle. As the function of underwater autonomous underwater vehicle is further strengthened, its corresponding application is also popularized from the original military field to the civilian field. According to the survey, the Underwater autonomous underwater vehicle is a kind of underwater unmanned vehicle. As the function of underwater autonomous underwater vehicle is further strengthened, its corresponding application is also popularized from the original military field to the civilian field. According to the survey, the global market size of autonomous underwater vehicle (uuv) increased by 11% year-on-year in 2018. Production reached 149 units, up 4% year on year. The research on intelligent underwater robots, which is expected to reach the compound growth rate of China in the next five years, started late but developed rapidly. In recent years, some companies have launched small models and put them into use. For example Deep in far and so on. More than 250 autonomous underwater vehicles are expected to enter service over the next five years. In autonomous underwater robot technology research, the United States, Canada, the United Kingdom, France, Germany, Italy, Russia, Japan and other countries in the leading position. Among them, the most famous research institutes are Sea Grant's AUV Laboratory of Massachusetts institute of technology (MIT), intelligent Underwater vehicle research center of **Naval Postgraduate School** (us), and Underwater Robotics Application Laboratory (URA) of university of Tokyo (Japan). In Harbin Engineering university, Shenyang Institute of Automation, Chinese Academy of Sciences and the study of intelligent underwater robot technology related research institutions since the mid – 1980 – s, design during the “number one” ocean underwater robot remote control type test model, and then developed the “discovery”, realized the automation in the field of 1000 m under the sea exploration, it is of great significance. In terms of intelligent decision-making and control, the “intelligent water” series of underwater robots designed by Harbin engineering university have overcome many technical difficulties, and the corresponding technical indexes are gradually approaching to the engineering application. For example, the “smart water 4” underwater robot can independently plan safe routes, draw target maps and identify underwater targets in the Marine environment. With the accelerating pace of human development of ocean. Underwater robot industry also gradually heat up, the form of a variety of purposes of underwater robot is active in the forefront of the Marine development, in addition to the traditional military in the field of application of intelligent underwater robot can also be used for underwater areas, such as: Marine surveying and mapping, and underwater construction, material transportation and daily training, etc. The intelligent underwater robot can be used for range test, torpedo identification, etc. The robot can be disguised as a torpedo as a target for daily training and torpedo performance test, and the intelligent underwater robot can be used as an acoustic target for submarine training. The global Underwater Autonomous Vehicle (AUV) market size is projected to reach US\$ 220.8 million by 2027, from US\$ 60 million in 2020, at a CAGR of 20.4% during 2021-2027.

In terms of production side, this report researches the Underwater Autonomous Vehicle (AUV) production capacity, value, ex-factory price, growth rate, market share by manufacturers, regions (or countries) and by Type. In terms of consumption side, this report focuses on the consumption of Underwater Autonomous Vehicle (AUV) by regions (countries) and by Application. The global Underwater Autonomous Vehicle (AUV) market is thoroughly, accurately, and comprehensively assessed in the report with a large focus on market dynamics, market competition, regional growth, segmental analysis, and key growth strategies. Buyers of the report will have access to verified market figures, including global market size in terms of revenue and volume. As part of production analysis, the authors of the report have provided reliable estimations and calculations for global revenue and volume by Type segment of the global Underwater Autonomous Vehicle (AUV) market. These figures have been provided in terms of both revenue and volume for the period 2016-2027. Additionally, the report provides accurate figures for production by region in terms of revenue as well as volume for the same period. The report also includes production capacity statistics for the same period. Regions and Countries Regional analysis is another highly comprehensive part of the research and analysis study of the global Underwater Autonomous Vehicle (AUV) market presented in the report. This section sheds light on the sales growth



of different regional and country-level Underwater Autonomous Vehicle (AUV) markets. It includes sales (consumption) analysis and forecast by each application segment and type segment in terms of volume for the period 2016-2021. For the period 2016-2027, it provides detailed and accurate country-wise volume sales analysis and region-wise volume analysis of the global Underwater Autonomous Vehicle (AUV) market.

[Global Underwater Autonomous Vehicle \(AUV\) Market Will be US\\$ 60 Million in 2027 with CAGR 20.4 % – QYResearch Report – South Florida Theater Review](#)

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EDUCATION:

Official Navy Reading List Includes ‘Anti-Racism’ Books

(American Greatness 26 Feb 21) ... Eric Lendrum

The United States Navy’s official curriculum is set to include new books on “anti-racism” and “gender politics” that will further push the message of social justice in America’s military ranks, according to the Washington Free Beacon.

Of the 37 books included in the full reading list, 16 books are listed under the category of “personal and leadership development.” Of these 16, four of them deal directly with social justice; among the titles are *How to be an Anti-Racist*, *The New Jim Crow*, and *Sexual Minorities and Politics*. These four stand out in particular against the other 33, which focus on the more traditional subjects such as military strategy and the history of the Navy.

The inclusion of far-left propaganda was criticized by Brent Sadler, a former Navy officer who currently serves as a senior fellow for naval warfare at the Heritage Foundation. Sadler said that “these reading lists should be making our sailors and officers better sailors and officers on ships at sea, ready to be effective in combat but also in great power competition,” but that the inclusion of these titles “suffers a real intellectual dishonesty.”

Although the current list is only meant for professional development, it is not yet required reading for sailors. But it is possible that such titles could become required reading in the future, potentially being used as part of the curriculum at the nation’s three naval educational institutions: The U.S. Naval Academy, the Naval War College, and the **Naval Postgraduate School**.

One Navy officer, who spoke on condition of anonymity, said that the inclusion of these titles was only due to mounting pressure from congressional Democrats to force social justice and identity politics into the military, saying that “you couldn’t not include that today and not have every Democrat on House Armed Services [Committee] glued on you.”

[Official Navy Reading List Includes ‘Anti-Racism’ Books - American Greatness \(amgreatness.com\)](#)

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FACULTY:

Del Rey Oaks looks at process to find new city manager

(Monterey Herald 23 Feb 21) ... James Herrera

Del Rey Oaks is preparing to begin the process of finding a new city manager after accepting a resignation at the start of the month.

Del Rey Oaks City Manager Dino Pick resigned from his post at the beginning of February after returning from Washington, where he spent the past four months serving as a deputy assistant secretary of defense at the Pentagon.



According to Acting City Manager Jeff Hoyne, Pick resigned effective Feb. 1 and has taken a position with the **Naval Postgraduate School in Monterey**.

Last September, Pick was tapped for the Pentagon position and requested a leave of absence through Feb. 15 with the majority of the council approving the unpaid time away.

“He never actually came back to the city,” said Del Rey Oaks Mayor Alison Kerr.

Pick transitioned from his leave with the city into a resignation to work at NPS, said Kerr.

“I resigned to assume the duties of director of International Graduate Programs at the Naval Postgraduate School,” said Pick. “NPS hosts the largest number of international military students of any Department of Defense institution of higher learning. Currently 135 students from 42 countries.”

In his absence, Hoyne has been at the helm as acting city manager.

“My contract as the acting city manager was extended indefinitely by the City Council this month as they determine the process to select the next city manager,” said Hoyne. “I expect this will take place sometime within the next couple of months.”

Kerr said the process would be discussed at Tuesday’s City Council meeting but would include opening up the search to candidates across the country. Kerr said the city would find a replacement on its own and not be using an employment recruiting service or headhunter.

With COVID-19 impacts and the downturn in tax revenues, the city needs to be cautious with finances, said Kerr.

Police Cmdr. Chris Borquoin will continue on as acting police chief while the police chief, Hoyne, continues as the acting city manager.

Hoyne said he will wait and see what the required qualifications are when the job is announced and listen to feedback from the community and the council before deciding on pursuing the city manager position.

Kerr said that the council wishes Pick well in his new position and is grateful he is working in the federal government. Kerr said the city now has the opportunity to take the next step.

“Serving as deputy assistant secretary of defense for special operations policy and programs rekindled a strong desire to contribute to the national security of the United States especially through building our alliances and partnerships around the world,” said Pick. “I hope to do just that while serving as director of International Graduate Programs at NPS.”

In his duties at the Pentagon, Pick oversaw a \$13.2 billion special operations budget specifically related to training, manning and equipping U.S. special operations forces.

Pick retired from the Army as a colonel in 2014 after nearly 30 years in the military. He was commandant of the Defense Language Institute Foreign Language Center in Monterey from 2010 to 2014 and then deputy city manager of the city of Monterey for about three years before taking on the position of Del Rey Oaks city manager in 2017.

Pick describes his four months at the Pentagon as “an honor” and “remarkably rewarding and meaningful.”

“Taking the position with NPS is a wonderful opportunity to continue to contribute to the national security of the United States by strengthening our alliances and partnerships around the world through one of the most amazing institutions in the Department of Defense,” said Pick.

The former Del Rey Oaks city manager said one reason he was so comfortable asking for a leave of absence to serve in the Pentagon was that he knew Hoyne could handle the job.

Pick said he believes in the importance of good municipal government and how much he treasured his experience and service in city government.

“As thrilled as I am to serve again at the national level, it’s worth bearing in mind that what we do at the national level in terms of security is to set the conditions for local communities to thrive,” said Pick. “And local communities thrive largely due to good municipal and county governments.”

[Del Rey Oaks looks at process to find new city manager – Monterey Herald](#)

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AIAA Announces its Class of 2021 Honorary Fellows and Fellows

(Space Ref 25 Feb 21)

The American Institute of Aeronautics and Astronautics (AIAA) proudly congratulates its newly elected Class of 2021 Honorary Fellows and Fellows. The induction ceremony for the new Honorary Fellows and Fellows will take place later this year.

“The Class of 2021 AIAA Honorary Fellows and Fellows are among the best minds in our profession. I commend each member of this year’s Class on their career accomplishments and dedication to furthering our industry,” said Basil Hassan, AIAA president. “This distinguished set of individuals has earned the respect and gratitude of the aerospace community for their creativity and valued contributions to better understanding our universe and mentoring future generations of aerospace professionals.”

Honorary Fellow is the highest distinction conferred by AIAA and recognizes preeminent individuals who have had long and highly contributory careers in aerospace and who embody the highest possible standards in aeronautics and astronautics. In 1933, Orville Wright became the first AIAA Honorary Fellow. Today, AIAA Honorary Fellows and AIAA Fellows are the most respected names in the aerospace industry.

AIAA confers the distinction of Fellow upon individuals in recognition of their notable and valuable contributions to the arts, sciences or technology of aeronautics and astronautics. Nominees are AIAA Associate Fellows. Since the inception of this honor, 1,980 distinguished persons have been elected as a Fellow.

“AIAA takes great pride in honoring this Class of Honorary Fellows and Fellows. These professionals have distinguished themselves by their significant and lasting contributions to the aerospace community. Their passion, accomplishment and dedication to the industry are worthy of this recognition. They are the inspiration to aspire to even greater heights for the generations that follow,” added Dan Dumbacher, AIAA Executive Director.

2021 AIAA Fellows

Juan J. Alonso, Stanford University

Randal W. Beard, Brigham Young University

Chiara Bisagni, Delft University of Technology

Stanley K. Borowski, NASA Glenn Research Center (retired)

Chia-Chun "George" Chao, The Aerospace Corporation (retired)

Olivier L. de Weck, Massachusetts Institute of Technology

Jeanette L. Domber, Ball Aerospace

Eric H. Ducharme, GE Aviation

Jack R. Edwards, North Carolina State University

Richard Scott Erwin, U.S. Air Force

Eric M. Feron, Georgia Institute of Technology

Irene M. Gregory, NASA Langley Research Center

W. Michael Hawes, Lockheed Martin Corporation

Michael Keidar, George Washington University

Erick Lansard, Thales

Roger D. Launius, Launius Historical Services

Ivett A. Leyva, Office of the Deputy Assistant Secretary of the Air Force for Science, Technology and Engineering

Ioannis G. Mikellides, NASA Jet Propulsion Laboratory

Kristi A. Morgansen, University of Washington

Greg F. Naterer, Memorial University

Daniel I. Newman, Boeing Defense, Space & Security

Guillermo Paniagua, Purdue University

James E. Polk, NASA Jet Propulsion Laboratory

Shahrokh Shahpar, Rolls-Royce PLC



Walter A. Silva, NASA Langley Research Center
Karen A. Thole, Pennsylvania State University
William A. Welsh, Sikorsky, a Lockheed Martin Company

Oleg A. Yakimenko, Naval Postgraduate School

[AIAA Announces its Class of 2021 Honorary Fellows and Fellows \(spaceref.com\)](#)

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UK Government, BBC, and Reuters Exposed in Anti-Russia Propaganda Operations

(Sputnik News 25 Feb 21) ... Michelle Witte and Wilmer Leon

Alexander Mercouris, editor-in-chief at TheDuran.com and host of "The Duran" on YouTube, joins us to discuss an ongoing scandal involving a UK government media operation against Russia. Recently leaked documents reveal a secret UK government-funded operation involving the BBC and Reuters aimed at creating instability in Russia. The operation appears to be exactly the targeted propaganda that EU and US media outlets have accused the Russians of operating during the 2016 US election cycle.

Chris Garaffa, web developer and technologist, join us to discuss a court ruling in California related to net neutrality. Judge John Mendez of the U.S. District Court for the Eastern District of California denied a telecom industry request for a preliminary injunction against a 2018 California State Legislature statute intended to restore net neutrality in the Golden State. The legislation created an outright ban on zero-rating—the practice of offering free data, potentially to the advantage of some companies over others.

Kevin Gosztola, the managing editor of Shadowproof.com, joins us to discuss a letter from two prominent democrats pushing for the censorship of conservative media news outlets in the United States. Reps. Anna Eshoo and Jerry McNerney sent the letters to AT&T, Verizon, Roku, Amazon, Apple, Comcast, Charter, DISH, Cox, Altice, and Hulu as well as Google's parent, Alphabet. This rare move has brought the ire of many free speech advocates due to the serious 1st Amendment questions that it raises. The House Energy and Commerce Committee will be holding a hearing on misinformation and disinformation on cable and broadcast networks on Wednesday, with a focus on the January 6th Capitol protests and the pandemic.

Medea Benjamin, the founder of Code Pink, joins us to discuss an article that she co-authored with Nicolas Davies regarding NATO's recent moves to confront Russia and China. The article brings out the failure of the military group in Afghanistan and questions the sanity of creating additional enmity with two of the world's preeminent nuclear powers. Also, Secretary of Defense Lloyd Austin pushes NATO to join the US in increasing pressure on China.

William J Astore, retired lieutenant USAF colonel, who has taught at the Air Force Academy and the **Naval Postgraduate School**, and now teaches History at the Pennsylvania College of Technology, joins us to discuss Afghanistan. Recent leaks from Capitol Hill say that military and intelligence officers have given President Biden three options for Afghanistan, none of which are particularly appealing. They present that Biden can stay indefinitely, follow the Trump negotiated May 1st withdrawal date, or attempt to negotiate an extension of the exit agreement with the Taliban. Meanwhile, the Taliban is stating that any changes in the current agreement for a May 1st withdrawal will cause problems.

George Koo, journalist, social activist, international business consultant and chemical engineer joins us to discuss US policy towards China. Senate Majority Leader Chuck Schumer has directed his legislative personnel to craft a bill that will be designed to counter China in the technology sector. The bill will reportedly have a price tag of approximately 100 billion dollars. Also, Chinese Foreign Ministry spokesperson Wang Wenbin says that recent claims of Chinese human rights violations by the UK regarding the Xinjiang region are intentionally disrupting Chinese cooperation with the UN Human Rights Council.

Miko Peled, an author and activist, joins us to talk about Israel joins us to discuss Israel's controversial vaccine policies regarding its Palestinian population. The Israeli government is giving away



vaccine doses to allied nations who are willing to join the US in moving their diplomatic corps to Jerusalem. The vaccine giveaway is part of a number of moves that have been dubbed by international security analysts as "vaccine diplomacy."

Dr. Linwood Tauheed, associate professor of economics at the University of Missouri-Kansas City joins us to discuss the argument over increasing the minimum wage. In his latest article on Common Dreams, noted economics professor Richard Wolff argues that "Paying a decent living wage to workers by raising the minimum wage need not threaten the viability of small businesses." He goes on to argue that the corporate media has been complicit in pushing an extremely flawed argument against creating a living wage for workers and ultimately decreasing income inequality.

[UK Government, BBC, and Reuters Exposed in Anti-Russia Propaganda Operations - Sputnik International \(sputniknews.com\)](#)

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Norwich University hosts second Peace and War Summit; experts will address U.S.-China relations

(Mountain Times 24 Feb 21)

Norwich University's John and Mary Frances Patton Peace & War Center will host the second Peace and War Summit, which will address the escalating U.S.-China rivalry in 11 virtual sessions held over seven weeks from March 3 to April 21.

The summit will highlight military/security, economic, cyber and technological challenges and follows Norwich's tradition of hosting leading scholars and policy experts to examine significant international issues, recommend viable solutions and educate future leaders through student participation.

The summit's live virtual presentations, which are free and open to the public, will run on Wednesdays for seven weeks. For more information and registration, please visit www.norwich.edu/pawc/events/2953-2021-peace-and-war-virtual-summit.

The second Peace and War Summit follows the inaugural summit, which was hosted at Norwich University's Northfield, Vermont campus in 2019 and addressed North Korea's nuclear and missile challenges.

The latest summit opens at 9 a.m. March 3 with keynote speaker Charles W. Hooper, who served 41 years in the U.S. Army and retired as a lieutenant general. Hooper spent much of his career focused on U.S. policy in the Indo-Pacific region, and specifically on the U.S.-China bilateral relationship. He completed two attaché assignments in Beijing, including as U.S. Defense Attaché to China, serving for a total of seven years in China. He also served as the senior country director for China, Taiwan, and Mongolia Policy in the Office of the Secretary of Defense, in addition to teaching Chinese foreign policy to rising U.S. military leaders at the **Naval Postgraduate School**.

U.S.-China relations, the upcoming summit's topic, matter for three primary reasons:

Disputes and cyberattacks. Exclusive Economic Zone (EEZ)/maritime disputes in the South/East China Seas; Taiwan-North Korea conflicts and relentless cyberattacks. All of these could lead to human casualties and economic shocks.

U.S.-China trade disputes. These continuing conflicts could threaten the liberal international economic order established after World War II.

Shared global responsibility. The global community's fate may hinge on how well the United States and China manage climate change, natural disasters, financial instability, the war on terrorism and nuclear proliferation.

[Norwich University hosts second Peace and War Summit; experts will address U.S.-China relations - The Mountain Times](#)

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WSPA's Reheis-Boyd: Oil, gas remain vital to future energy mix

(BIC Magazine 1 Mar 21) ... Eric L. Taylor

Catherine Reheis-Boyd, president of the Western States Petroleum Association (WSPA), is working to dispel the outdated notion that petroleum producers and environmental advocates are adversaries -- in order to guarantee the future of both.

"I have a strong belief that you cannot have one without the other for a truly sustainable energy future," she explained. "Real conversations must be based on facts and science -- not emotions and fears - - while remaining compassionate to the emotions and fears expressed, as these perceptions are a certain reality."

A 38-year veteran of the energy industry, Reheis-Boyd hails from southern California. She attended Catholic school through the eighth grade, an experience she credits for instilling in her a deep spirituality, which remains core to her to this day. "The values, discipline and focus I learned in my early years in Catholic school have influenced everything I do," she said.

Although she received an academic scholarship to attend California Polytechnic State University (Cal Poly), Reheis-Boyd worked her way through college as both a seasonal aid at the California Department of Fish and Game and as a bricklayer. After earning her Bachelor of Science in natural resource management at Cal Poly, she accepted a job at an environmental consulting firm in La Jolla, California, which allowed her to take additional post-graduate coursework in environmental engineering at the University of Southern California. Her work at the consulting firm's energy resources division required Reheis-Boyd to travel the U.S. conducting source testing and tracer tests of facility stacks. Her experiences included measuring emissions at a power plant in Illinois and a geothermal power plant in Idaho, collecting wind data for computer modeling simulations on Vandenberg Air Force Base, living on a marine research vessel off the California coast, and tracking the release of sulfur hexafluoride gas onshore to measure the impact of offshore oil drilling emissions for the **Naval Postgraduate School**.

Through the combination of her academic and work experiences, Reheis-Boyd discovered her passion for the energy-environment interface, which has motivated her to dedicate her life to advocating for environmental sustainability in order to ensure the energy industry continues to thrive. Looking forward, Reheis-Boyd recognizes that her work is far from finished.

"We are entering a period where the stakes have never been higher with how energy is produced, distributed, consumed, shared and managed," she explained. "How we approach these next few years will have a profound impact on social equity, the environment, our shared prosperity, and our overall health and well-being."

"Oil and gas will remain a vital part of the energy mix for the foreseeable future. We are committed to collaborating with others on how we can continue to develop a sustainable energy future that is less carbon-intensive to address climate change and impacts to community health and safety -- for the good of all people."

Taking the lead

Founded in 1907, WSPA is the oldest petroleum trade association in the U.S., representing the companies that account for the bulk of petroleum exploration, production, refining, transportation and marketing in five West Coast states. WSPA's mission is to ensure Americans continue to have reliable access to petroleum and petroleum products through policies that are socially, economically and environmentally responsible.

Reheis-Boyd has led WSPA on its mission since 2010, and has always aspired to carry the mantle of president, even in her earliest days at the organization.

"I knew I would be president one day," she said of her early ambitions. "I had no idea it would take 20 years to realize that dream."

Since taking the lead, her goal has been to "bring a conversation to the table that is open, transparent, collaborative and authentic so real progress can be made; talking with each other, not over each other."



"The biggest issue facing WSPA is changing our mindset to a future that can be built -- not on preconceived notions -- with an eye toward a better future we create together. I believe that our people, planet, prosperity and, frankly, our progress as a society depends on it."

Despite the challenges ahead, Reheis- Boyd sees a bright future for the industry.

"I represent energy companies in the truest sense of the word. Oil and natural gas will be with us for a long time as we innovate in renewable energy," she said.

One motivation for ensuring a sustainable future for energy and the environment that Reheis-Boyd cites time and time again is leaving a legacy for the children and grandchildren who will be affected by the energy decisions made today.

"When it comes to creating the truly sustainable energy future we all want for our kids and grandkids, the question is not if oil and gas will play a role, but what role we will play."

Leaving a lasting legacy

Of all the titles Reheis-Boyd holds -- president of WSPA; vice chair of the California Foundation on the Environment and the Economy; board member of the R.M. Pyles Boys Camp; a position on the Natural Resource Advisory Counsel at her alma mater, Cal Poly -- the titles she's proudest of are "second mom" to her 12 nieces and nephews and their children, who include her in their Mother's Day celebrations; "sister" to her all-inspiring brother and four sisters; "friend" to her husband's only sister and three adult children, whom she is very fond of and close to; and "wife" to her loving husband Jim, whom she treasures and who "makes her whole."

Family is the most important thing to Reheis-Boyd -- a value instilled in her by her parents, whom she admired and deeply loved. When not doggedly working toward a sustainable energy future as president of WSPA, she values spending as much time as possible with her family.

"It's family first, for me," she affirmed.

But her "family first" attitude does not apply only to her home life.

"I instill that family first culture within WSPA," she explained. "We are a family; we care about and support each other and each other's lives and families."

Reheis-Boyd knows family members don't always agree with one another. However, it is critical that family members be able to share their opinions and, even when they disagree, differing opinions should be valued equally to contribute to the family's bond. That perspective extends beyond just the WSPA family as well; the fingerprint of Reheis-Boyd's "family first" focus can be seen in her leadership and her prioritization of giving every voice, including dissenting voices, a seat at the table with regard to the future of energy.

"All views matter as we engage in future pathways critical for meeting the needs of consumers," she said. "My team appreciates and understands the diversity of WSPA's membership, and differing opinions hold as much value to us as our own, as we chart a sustainable energy future together."

The future of energy is so important to Reheis-Boyd because she views all sides not as competitors, but as members of the same family. Her faith is unshakeable that the global family, despite its disagreements, is working together toward the sustainable energy future she hopes to help create for future generations.

"There are thousands of highly educated, dedicated and conscientious scientists, engineers and passionate problem-solvers across the oil and gas industry -- each of them with families and children of their own who breathe the same air, drink the same water and share the same economic future," she explained.

"I hope my legacy will be the growth, success and visibility of the team I have developed, the team's performance and morale at all levels, and setting up the opportunity and succession planning for the next leader to take us into the future.

"Any hand I can have in my work at WSPA toward enhancing the understanding that our only path to a future that works for all our children and grandchildren is to balance the environment with an all-of-the-above sustainable energy mix and balance social equity with the needs of the economy -- this is the lasting legacy I hope to leave behind."

[WSPA's Reheis-Boyd: Oil, gas remain vital to future energy mix - BIC Magazine](#)



Lessons for the States on Energy Security

(Real Clear Energy 23 Feb 21) ... Dr. Brenda Shaffer

The recent extended electricity outage in Texas has spurred a sharp debate on how to prevent future disasters in Texas and other states. Much of this debate ignores the fact that few states have adopted a proactive approach to energy security. Instead, most have left energy security matters to market mechanisms and to Washington, neither of which can deliver on local needs. States would benefit from adopting energy security policies. In crafting these policies, they can learn from the tenets of international energy security policy as practiced by many countries with smaller populations and GNP than medium and large U.S. states.

These lessons include the need for government involvement in energy security, the necessity of emergency-supply plans, the importance of diversifying fuel sources, the need for energy storage and dual-fuel power plants, and legal protection of ownership and operations of critical energy infrastructure.

Lesson one is that energy security is akin to national security, and markets alone can't provide it. Accordingly, U.S. states need energy security policies. While market mechanisms and private companies can play the dominant role in energy production, transit, and marketing, the state must stay involved in ensuring that mechanisms are in place for energy security.

Second, well-governed states develop and execute detailed emergency plans in case of disruptions of natural gas, liquid fuels, and electricity supplies. Most NATO member countries, for instance, have energy emergency-supply plans. These plans allow these governments to pre-emptively shut down energy-intensive, non-essential industries, such as cement production, desalination plants, and some manufacturing.

By doing so, governments can prevent grid collapse and ensure that those that need the supplies most, particularly residential customers, will receive energy supplies. As the recent bitter freeze loomed, Texas should have preemptively ordered such a shutdown. Instead, several days into the crisis, energy-intensive industries in Texas, like gas-liquefaction plants, chose to shut down. Texas and many other U.S. states rely on market mechanisms to direct such shutdowns, but the market mechanisms did not deliver. A simple emergency-response plan could have prevented the meltdown.

Next, diverse fuel mixes enhance security of energy supply. Following the Texas outage, interested parties sought to blame specific energy sources such as wind and natural gas for the failure. It's a good thing that Texas's electricity is produced by multiple energy sources, but as foreign countries know, energy systems need back up and redundancies. Governments need to mandate that natural gas companies store backup supplies, not leave it to the companies' discretion.

Israel, for instance, despite possessing, like Texas, vast natural gas resources in the ground, stores liquefied gas for emergency use. And some of the electricity power plants should be dual-fuel, so that when gas supplies are disrupted, they can easily transfer from one fuel type to another and keep generation going. The dual-fuel plants are less efficient, so the private market tends not to install them. Again, it falls to governments to ensure some backup plants are available when needed. Most Eastern European nations possess dual-fuel power plants to offset potential disruptions of Russian gas.

While not connected to the Texas supply outage, future disruptions could be tied to foreign actors that acquire ownership in U.S. energy infrastructure. Most foreign countries enact laws to protect their strategic infrastructure from being acquired by potential hostile actors. For instance, Lithuania in 2012 barred ownership of its energy and other strategic national infrastructure by companies that do not share a "trans-Atlantic orientation," in an effort to prevent Russian ownership of its grids and ports. U.S. states need also to assess the risks from foreign actors and put legislation in place to protect essential energy infrastructure.

Marketization of energy trade has had many worthwhile results, leading to greater supplies and lower prices of many forms of energy. However, U.S. states need to enact policies that ensure the reliability of

those supplies, especially as most American communities plan expanded use of electricity. States are much better equipped than the vast federal government to provide for local security of supply of energy. Market mechanisms are not enough to get the job done. The public expects local governments to ensure secure energy supplies. When the lights go out, citizens blame their states, not private companies or Washington.

Dr. Brenda Shaffer is an international energy expert. She is a research faculty member of the US Naval Postgraduate School, a Senior Advisor for Energy at the Foundation for Defense of Democracies, and a Senior Fellow at the Atlantic Council's Global Energy Center. Her book *Energy Politics* is used as a textbook in over 200 university courses.

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Turkey's mobsters step out of shadows and into public sphere

(The Guardian 23 Feb 21) ... Beth McKernan

After decades in hiding, in prison or keeping low profile, players from a bloody period in the country's history are now seen as 'folk idols' by the Turkish.

At first glance, the photograph of two smartly dressed older Turkish men, posing for the camera in an office filled with flags, could be of any important figures in the country – but it is rare for a picture to say so much about both the past and the future.

On the left is Devlet Bahçeli, an ultranationalist political dinosaur who has in the past few years become an influential coalition partner in the government of Turkey's president, Recep Tayyip Erdoğan.

The man on the right, Alaattin Çakıcı, is the most notorious mobster in Turkey. Accused of 41 political murders, and jailed for ordering a hit on his ex-wife, who was shot dead in front of their young son, he was nonetheless freed from prison along with dozens of other mafia heavyweights in a coronavirus amnesty last year that notably ignored political prisoners.

The Turkish mafia's sudden rehabilitation in public life has taken a hold on the popular imagination. It also suggests a new political climate is emerging in which the state at best tolerates, and at worst, embraces, previously shadowy figures.

Bahçeli and Çakıcı's particular friendship stretches back decades. Both rose to prominence in the late 80s as members of the Grey Wolves, a neo-fascist paramilitary group which today functions as the youth wing of Bahçeli's Nationalist Movement party (MHP) and denies any political or violent activity.

That period in Turkish history is dark and bloody, characterised by violence between far right organisations like the Grey Wolves and leftist groups such as the Kurdistan Workers' party (PKK).

During these years, Turkey's intelligence agency partnered with the mafia to carry out political assassinations – an arrangement exposed in spectacular fashion in a 1996 car accident which killed an MP, Istanbul's deputy chief of police, and Grey Wolves leader Abdullah Çatlı, all of whom were travelling in the same vehicle.

After decades spent in hiding, prison, or keeping a low profile, players from this era are making a bold re-entry into the public sphere.

Çakıcı himself has sent death threats to the leader of the main opposition party while paying visits to other political figures and boasting about friends in high places on social media. He also popped up in an Instagram shot alongside a former interior minister and senior army officials in the resort town of Bodrum in October, in a picture posted by a wealthy businessman with ties to Erdoğan's ruling Justice and Development party (AKP).

Broad daylight attacks on a politician, journalist and lawyer critical of the MHP by men with sticks and guns in Ankara last month also had uncomfortable echoes of the lawlessness of the 80s.

According to **Ryan Gingeras, a professor at the Naval Postgraduate School** in California and author of *Heroin, Organised Crime, and the Making of Modern Turkey*, however, the political context today is very different.



“The reemergence of real-life mobsters such as Çakıcı doesn’t represent a return of the mafia so much as the way in which these men have become folk idols on the Turkish right,” he said.

“What these throwback characters do tell us, I think, is that there’s a new political environment developing in Turkey – one in which these men have been absolved of their past crimes, and it’s becoming clear for the AKP that embracing the MHP’s hard nationalist stance at the very least doesn’t harm their political project. It may even help.”

Bahçeli’s previously fringe party is a problematic ally for Erdoğan. The AKP and MHP believe in different types of nationalism – the former Islamist, the latter secular – leaving them at odds on several important domestic and foreign policy issues.

But one of the most significant ways in which Turkey’s political alliances were transformed in the aftermath of the coup attempt in 2016 appears to be the rebirth of the Turkish far right as a prominent political force. Having alienated most other potential political partners in the last 20 years, and as the AKP’s popularity continues to wane, the president now has little choice but to stick with MHP if he wants to hang on to power.

The AKP itself is also no stranger to corruption and criminal scandals. The growing prominence of MHP and its unsavoury friends has left some wondering whether Turkey may yet turn into a bona fide mafia state.

[Turkey's mobsters step out of shadows and into public sphere | Turkey | The Guardian](#)

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ALUMNI:

Watershed Security, LLC Selects Don General as CIO and Hezekiah Natta as COO

(PR.com 23 Feb 21)

Watershed Security, LLC, an ISO 9001:2015-certified provider of Cyber Security and Information Technology solutions for defense and civilian markets, has selected Don General to be their new Chief Information Officer and Hezekiah Natta as their Chief Operating Officer.

Don, who previously served as Watershed’s COO, has over 25 years of Federal Government Service experience, providing stellar support to the Department of Navy’s cyber community. A decorated Marine Corps veteran, Don was awarded the Navy Meritorious Civilian Service Award for exemplary service. He is also a two-time recipient of the Department of Navy’s Information Management/Information Technology Award for delivering innovation and meaningful change to the Department.

Watershed Security founder and Chief Technology Officer (CTO) Christopher Winter commented, “Don has been a tremendous asset to the Watershed family, and having him take the reins in our newly formed CIO role is another step in Watershed’s growth as the premier Cyber Security solutions provider for the DoD and Federal Civilian marketplace. We also welcome the leadership of Hez, his wealth of experience in leading a diverse workforce, and his commitment to our Warfighters.” CEO Ron Boustedt added, “I find that it is a great honor to have fellow veterans as part of my leadership team.”

As Watershed Security’s COO, Hezekiah (Hez) will oversee Watershed’s daily operations and the delivery of our portfolio of services to our Federal, Commercial, and Civilian Agency customers. A 32-year Navy Veteran with combat experience in Desert Storm, Hez also served as CISO for several combatant commands and established the International Zone Communication Systems in Baghdad, Iraq. Hez was part of the leadership team which established the Navy Electronics Technician Training School in Norfolk, VA, and has served as the Executive Officer (XO) at Naval Computer and Telecommunications Station Bahrain. Hez is the recipient of many personal and campaign awards including the Defense Meritorious Service Medal, Meritorious Service Medal, Navy Commendation Medal, Navy Achievement Medal, Iraqi Campaign Medal, the Presidential Unit Citation, and the Armed Forces Communications and Electronics Association (AFCEA) Leadership Award in a Joint Operational Combat Zone.



He's earned a Bachelor of Science Degree in Interdisciplinary Studies from Norfolk State University, a Master's Degree in Information Systems Management from Troy University, and an Executive Masters in Business Administration from **Naval Postgraduate School**. Additionally, he maintains the Project Management Professional (PMP) certification.

[Watershed Security, LLC Selects Don General as CIO and Hezekiah Natta as COO - PR.com](#)

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Kill the Drug War: Death, Decisions, and the Limits of Military Power

(War on the Rocks 25 Feb 21) ... Collin Fox

To decide is to kill options, from Latin roots meaning “to cut away.” Given that real strategy demands hard choices, which extraneous missions must die on the altar of priority? The Department of Defense wandered into law enforcement roles as the Cold War faded and the end of history seductively promised an end to interstate competition. The excess of means and dearth of serious threats soon had the military chasing drug runners and trying to stabilize failed states.

That benign security environment is long gone. Today, great-power competition with China and Russia demands far more disciplined force planning and deepened alliances. Despite these growing security challenges, the United States continues a drug war that wastes exquisite military tools, destabilizes fragile states, and sours hemispheric relations — yet fails to gain any measurable progress. The routine deployment of military forces on such a peripheral mission habituates policymakers into seeing them as the default answer for other policy challenges, and that overuse dulls the military instrument even as it displaces appropriate civilian tools. For the sake of a coherent grand strategy, the United States should kill policies and missions that are simply impossible distractions — starting with the war on drugs.

Imperial Hubris and the Central American Conundrum

Aroop Mukharji's War on the Rocks piece, “The Central American Conundrum: Toward a New Regional Security and Economic Order,” presents a new distraction that hopes to solve the root causes of the migration crisis with troops and tariffs. He advocates that the United States fund, organize, and lead “an international peacekeeping force, operating under the banner of the Organization of American States” to fix the Northern Triangle's continuing instability, and proposes a revised tariff scheme to improve the regional economy.

The likely outcomes for these proposals range from costly and ineffective to simply disastrous.

As in Beirut in 1983 and Somalia in 1994, an open-ended military deployment to counter violent criminal gangs in Central America simply lacks an attainable military end state that could support a real theory of victory. Though the United States already uses military tools in the region for security cooperation and support to law enforcement, the idea of a military stability operation proportionate to the region's violence is a uniquely bad one.

In contrast, the protectionist tariff proposal reflects a widely accepted premise that has informed regional economic policies for the past 60 years: Prosperity brings stable security, and the United States should underwrite some of these costs for the benefit of the entire hemisphere — including itself. To combat the hemisphere's poverty and volatile social discontent, President John F. Kennedy promised “resources of a scope and magnitude sufficient to make this bold development plan [the Alliance for Progress] a success.” More than 40 years later, President George W. Bush claimed the Central America-Dominican Republic Free Trade Agreement would “help the democracies of Central America and the Dominican Republic deliver a better life for their citizens [by] opening up their markets [and so attracting] the trade and investment needed for economic growth.” President Joe Biden's Central America plan to build “security and prosperity” also follows this consensus framing of the problem. The “comprehensive four-year, \$4 billion regional strategy” touts “private sector investment to promote



economic stability and job creation” and “economic prosperity through poverty reduction and regional integration programs” as two of its four lines of effort.

Whether countering communism, protectionism, or migration, though, such plans often fall well short of their noble objectives. Pitfalls abound for policymakers: They must craft functional yet salable proposals founded on valid assumptions while also anticipating the vagaries of the coming decades. As they construct a theory of change that leads to prosperous security, planners tend to gravitate toward readily accessible metrics, such as trade balances and formally tabulated economic sectors, and hope that influencing these visible factors will unlock the desired outcome.

Many development plans consequently undervalue a range of hidden factors, including illicit trafficking, corruption, and extortion. Though legal and visible, remittances also confound simple schemes that seek to curtail migration through prosperity-generated security. Remittances generate a larger share of Northern Triangle economies than manufacturing — \$22 billion versus \$19 billion per year. Targeted growth in manufacturing and industrial sectors could indirectly support better citizen security, and could by extension reduce migration, but the gradual losses in migration-generated foreign remittances would offset the net economic gains. Such complexity illustrates only one of the many challenges faced by planners attempting to address thorny problems with economic tools.

Although no development plan can guarantee success, simplistic policy proposals that fail to staunch the destabilizing flow of drug money and the related corruption and violence can only yield ignoble failure.

The Root of Corruption

Corruption ebbs and flows as a function of a society’s norms and relative prosperity. Officials in a prosperous and rules-based society have little to gain and much to lose by soliciting a bribe, but in a poorer society with endemic corruption and violence, refusing a bribe can be downright suicidal. From beat cops to petty bureaucrats to presidents, a culture of corrupt impunity grows and thrives.

Drug money has gradually normalized high levels of corruption along the trafficking routes. Recent notables include Mexico’s former secretary of defense and former secretary of public security, the current president and the head of congress in Honduras, the former president of El Salvador, and Guatemala’s former head of law enforcement and former minister of communications, infrastructure, and housing. Cocaine money in particular has seduced presidents, generals, and senior Cabinet officials for a generation, and shows no signs of stopping. The money is just too good. Even when the drug trafficking shifts to a new route, normalized corruption stubbornly remains behind, seeking out new revenue from graft and extortion.

Not everyone can be bought, though. Criminals selectively employ coercive violence against rivals, honest judges, competent police, inconvenient witnesses, and so many others. In 2018, 10,895 people in the Northern Triangle were murdered, and a further 5,695 were victims of forced disappearance — a euphemism often signifying abduction, torture, dismemberment, and disposal. The Syrian civil war killed 6,776 civilians and a further 13,185 combatants through that same bloody year, but in contrast to the wanton military violence in Syria, killers in these violently corrupted areas calibrate each individual murder according to its purpose: whether eliminating a judge, extorting businesses, or coercing an entire government. Extrajudicial killings swell the body count as hunted and frustrated cops exact their private revenge.

In light of these destabilizing levels of endemic corruption and warzone-level violence, how much stability could a large deployment of peacekeepers create in the Northern Triangle? International stability operations in Haiti provide the closest hemispheric analogue: In both locations, well-armed criminal gangs profit from local instability and perpetuate it through extensive corruption, coercive political violence, and virulent subcultures.

Haiti’s peacekeeping mission kicked off in 2004 with outsized confidence and an all-star football match, but U.N. forces nevertheless struggled to establish stability, much less preserve it. Today, Haiti remains little better off than before the 13-year mission. Gangs control much of the capital and the embattled president rules by executive decree. Adding injury to debatable efficacy, the U.N. force left the tragic legacies of raping hundreds of impoverished preteens and starting a cholera epidemic that killed



nearly 10,000 Haitians. This peacekeeping experience should temper expectations for a bigger and more ambitious repeat in Central America.

The Northern Triangle has triple the population of Haiti spread over nine times the area, and suffers five times the murder rate owing to a variety of factors, including far larger drug flows and the jagged aftermath of Central America's long civil wars. If a peak force of more than 12,000 peacekeepers failed in Haiti, rough heuristics suggest the Northern Triangle's challenges would require well over 100,000 peacekeepers. By his own admission, Mukharji's proposed stabilization force would require fundamental changes to the Organization of American States. It would also require a nearly unprecedented departure from Mexico's historical policy of nonintervention and uncharacteristically submissive and enduring invitations from each Northern Triangle state. Putting these major policy obstacles aside, an external military stabilization force in the Northern Triangle would likely succeed only in wasting billions of dollars and placing foreign soldiers in awkward law enforcement roles. The destabilizing and corrupting web of dirty money would adapt beneath the militarized response, just as it did in Mexico.

The American electorate holds its military in uniquely high esteem, but that does not make us magicians who can reliably conjure peace from generational chaos in a few decades. The United States should not rush abroad in search of monsters to destroy or new stability conundrums to untangle.

The Economics of (In)stability

A trained surgeon might use a scalpel over tense hours to save a life. An amateur assassin could use the same tool to destroy life in seconds. The same dynamic extends to money: Dollar for dollar, dirty money sows discord faster than legitimate trade and investments can preserve stability. Adam Smith's invisible hand has a hyperactive evil twin.

In 2016, Americans spent roughly as much on wine and beer as they did on cocaine, heroin, marijuana, and methamphetamine. The \$24 billion U.S. retail cocaine market spreads a small but significant fraction of the overall value chain throughout the transit zone, growing the wholesale value from \$2,200 per kilo in the Colombian jungle to \$27,000 per kilo in New York. The even larger market for other illicit drugs, including heroin and fentanyl, steers many billions more to Mexican criminal organizations.

A complex and adaptive network of illicit economic linkages churns, transfers, and reinvests these billions into patronage networks, hired guns, and similar business expenses throughout Colombia, Central America, and Mexico. The single-digit billions from regional cocaine trafficking might seem nearly inconsequential against the Northern Triangle's collective \$123 billion gross domestic product (GDP), but a few billion dollars hidden in malignant hands can devastate an already fragile state like a scalpel slicing through exposed arteries.

Researchers writing in the *Bulletin on Narcotics* generalized that "lack of trust, competition, and risks from law enforcement" collectively fracture illicit trafficking networks into smaller and more secure cells. A more recent PRISM article noted how militarized crackdowns and kingpin strategies against Mexican transnational criminal organizations have accelerated this "incipient process of fragmentation in the criminal underworld towards horizontal networks of smaller outfits."

So, instead of staying within the efficient pipeline of a vertically integrated cartel, pressurized dirty money now darts through these consequently more numerous economic links with higher monetary velocity and far higher profit margins than a typical global value chain. Atomized money spurts through the hands of coca farmers, lab operators, FARC dissidents, neighborhood gangs, hit men, clandestine shipyard workers, fishermen, crooked officials, fixers, money launderers, accountants, lawyers, and politicians. This global value chain better resembles a massive cobweb: redundant, resilient, and evolved for robust, adaptive, and profitable efficacy over fragile efficiency.

The value chain's beginning, covering production and trafficking in Colombia, illustrates the multiplicative power of this microeconomic effect. Although Colombia's annual coca cultivation and processing totals only \$810 million, or 0.2 percent of Colombia's GDP, the percentage grows tenfold, to 2 percent of GDP, when accounting for the additional economic impact between the jungle cocaine lab and the border.



The size of this illicit economy also illustrates the greater efficiency of locally actioned dirty money versus centrally planned state finance. Colombia spends more than 3 percent of its GDP in military expenditures and receives more than \$1 billion annually in development assistance. Despite these enduring investments, which are aimed at and exceed Colombia's cocaine economy, the 2018 coca crop represented the second largest ever recorded, while the associated revenue fuels a truly challenging security environment.

Dirty money displaces the good with remarkable efficiency. One assassin gives bloody work for many trauma surgeons, coroners, and gravediggers.

Fairer Trade Is No Panacea ...

States in the Northern Triangle struggle against the same insidious efficacy of dirty money further along the value chain, a problem for which Mukharji and others proffer trade-based solutions based on the intuitive correlation between prosperity and security. He claims that protected industries would eventually create "a stronger regional economy," which would in turn "help to stem emigration, weaken drug and human trafficking networks, and end the endless cycle of regional economic depravity." This myopic focus on one part of the licit economy merits careful dissection.

Without addressing the wicked problems of endemic extortion and corruption, a growing economy merely incentivizes criminals to get an even bigger share of an expanding pie. Although the Northern Triangle's gangs and other criminalized power structures might get an early boost with drug money, they quickly diversify their revenue streams by violently extorting bus companies, garbage trucks, and virtually every other local business. These tragic examples help explain the paradoxical reality that "homicide rates first increase as per capita income rises."

The surprisingly positive correlation between prosperity and violence eventually flattens and reverses, at least for Latin America as a whole, but countries on the cocaine trail buck this larger trend despite robust military responses to drug trafficking. Citizens in Brazil, Colombia, and Mexico enjoy much higher incomes than citizens in the Northern Triangle. Even so, these richer nations all suffer higher homicide rates than Guatemala, which has half the per capita income of Mexico. El Salvador had virtually the same per capita income as neighboring Guatemala in 2018, yet suffered more than double its per capita homicide rate that same year. El Salvador's homicide rate has since fallen dramatically, but gang politics explain this swing far better than marginal economic growth. The lack of correlation between prosperity and security along the cocaine trafficking route shatters the original claim for causal inference, and with it, specious arguments for preferential tariffs. Many, many other factors beyond prosperity help create citizen security.

... Neither Is Military Power

The proposals for large peacekeeping forces and unequal tariffs represent only two bad ideas on a nearly endless field, but at least these can die as rejected proposals rather than as wasteful realities. The same cannot be said for the longstanding overuse of scarce nuclear attack submarines, strategic bombers, Aegis destroyers, anti-submarine aircraft, and command and control aircraft on extracurricular law enforcement support missions in the Western Hemisphere. Worse than simply inefficient, these exquisite tactical instruments have failed to gain any operational progress toward a strategic end state in the war against cocaine.

The Government Accountability Office observed in 1991 that "interdiction alone cannot raise cocaine traffickers' costs and risks enough to make a difference, regardless of how well [the Department of Defense] carries out its detection and monitoring mission." Contemporary analyses from the CIA and RAND Corporation reached similar conclusions.

These Cold War-era analyses remain fundamentally valid, even as traffickers adapt to the continuing pandemic and redoubled counter-narcotics operations. The Drug Enforcement Administration recently assessed that "the continuing overall trend of lower prices but higher purity suggests demand remains lower than supply—resulting in a cheaper, more pure product than throughout the past decade." Looking ahead, the 2019 National Drug Control Strategy glumly anticipates that drug traffickers will



embrace a “favorable risk-reward structure ... to an even greater degree in the years to come.” The Government Accountability Office, CIA, and RAND Corporation predicted as much 30 years ago.

If nothing else, though, military counter-narcotics operations can sate a frustrated electorate’s demand for its government to do something about the epidemic of drug overdoses — even if that ostentatious something has almost nothing to do with causal factors. Cocaine’s obvious horticultural origin in South America and clear market destination in North America make it the perfect target for well-publicized interdiction efforts. While 67,367 Americans died by drug poisoning in 2018, cocaine (without opioids) caused only 3,779 of that tragic total, which is scarcely more than a typical year for accidental drownings. Meanwhile, opioids such as fentanyl killed a staggering 46,802 Americans. The unending stream of dramatic, military-supported cocaine interdictions in the Caribbean and Eastern Pacific might seem like progress against drug trafficking writ large, but these tactical successes have little relation with growing cocaine availability and historically low prices. Stopping a few tons of cocaine makes a great headline, but it does nothing against prevalent and far deadlier synthetic opioid availability.

Former Secretary of State George P. Shultz only stated the obvious in 2013:

The war on drugs has simply not worked. It hasn’t kept drugs out of this country. It hasn’t caused us to have a lower level of use than other comparable countries. We have wound up with a large number of young people in jail, mostly blacks, a huge cost, and a debilitating one to our society. And big foreign policy costs.

If You Want a Friend, Be a Friend

Beyond wasting military power and catalyzing violent corruption from Colombia to Mexico, the drug war also persistently alienates allies and partners throughout the hemisphere — Shultz’s “big foreign policy costs.” These relationships should be strengthened, not poisoned. As the global security environment degrades into multipolarity, and traditional allies with stagnating demographics suffer a declining share of global power, the United States should diversify its partnerships to help balance China’s assertive rise. Although the entire hemispheric neighborhood is important, Mexico and Colombia merit particular attention.

Mexico has a larger economy than South Korea, and will surpass France and the United Kingdom in economic size around 2030. Colombia’s smaller but rapidly growing economy now exceeds South Africa’s. These Pacific-facing, maritime democratic powers have a combined population exceeding Russia’s, and both Mexico and Colombia (a current treaty ally) have fought and bled alongside the United States in the Indo-Pacific theater.

Today, however, both partners fight persistent and well-funded criminal insurgencies within their own borders. U.S. drug prohibition creates just enough scarcity for criminal organizations to reap incredible profits and fund these wanton insurgencies, even as this strategy fails to restrict widespread drug availability.

Respected leaders from Mexico and Colombia know this interminable struggle all too well. In his 2016 Nobel Lecture, President Juan Manuel Santos of Colombia argued that “the manner in which this war against drugs is being waged is equally or perhaps even more harmful than all the wars the world is fighting today, combined. It is time to change our strategy.” The Organization of American States presented a range of policy options, including decriminalization and legalization, in its 2013 report on the drug problem in the Americas. Vicente Fox, former president of Mexico, called for the legalization of all drugs.

Allies matter now more than ever in recent memory, and they should not be conspicuously alienated for the sake of a mission that has always been a fool’s errand. Formerly circumspect American voters increasingly agree with Shultz, Santos, and Fox. Such a policy shift would help defund organized crime from Colombia to Mexico. Though no panacea, this would help make these regional powers into potentially more effective partners, while also ameliorating the horrific violence that pushes waves of migrants from Central America.

Decades of militarized counter-narcotics efforts demonstrate that even the most brilliant application of overwhelming force cannot redeem flawed strategy. As the international security environment continues to degrade, the United States should preserve its military instruments for truly



military challenges, stabilize the hemispheric neighborhood through policy rather than open-ended military deployments, and attract truly consequential allies.

Killing the drug war would help accomplish all three.

Lt. Cmdr. Collin Fox, U.S. Navy, is a foreign area officer who recently served as the Navy and Air Force Section Chief at the Office of Defense Cooperation, U.S. Embassy, Panama. He earned a master of systems analysis degree from the Naval Postgraduate School and a master of naval and maritime science degree from the Chilean Naval War College. He has also published with the U.S. Naval Institute and Center for International Maritime Security.

[Kill the Drug War: Death, Decisions, and the Limits of Military Power - War on the Rocks](#)

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Search for Bozeman Chief of Police narrowed to three candidates

(KULR 24 Feb 21) ... Meridith Depping and Noah Schmick

The search for the City of Bozeman's next Chief of Police has been narrowed down to three finalists.

After a nationwide recruitment and screening process that started in November, the city invited six candidates to interview for the position, and now they're down to the final three.

The three finalists, Jim Baumstark, Eric Paulson and Jim Veltkamp will be in Bozeman on March 18-19.

A virtual community forum will be hosted by the City of Bozeman on Thursday evening, March 18, as part of the interview process. Details for the forum are being finalized and will be provided next week.

The City of Bozeman shared the information on the candidates in alphabetical order:

James "Jim" Baumstark has over 30 years of law enforcement experience, including 16 years at the executive level. Jim joined the Asheville Police Department (APD) in North Carolina as the Deputy Chief in 2015. He has led both the Operations and Administrative Divisions of APD. Jim is a member of the steering committee for the Justice Resource Center. In addition, he successfully implemented a Body Worn Camera program and an Officer Deescalation Training program at APD. Currently, Jim is the department lead on an Open Data Portal that provides transparency to the community. Prior to his arrival in Asheville, he served with the Fairfax County Police Department (FCDP) in Virginia for more than 26 years. He held many supervisory and command assignments in operational, investigative, and administrative positions. He held the rank of Captain when he left FCPD to join APD. As Captain, he oversaw all responsibilities for the Franconia District Station, Criminal Intelligence Unit, the FCPD Gang Unit, grant-funded Human Trafficking Task Force, and he served as the Director of the Northern Virginia Regional Intelligence Center.

Deputy Chief Baumstark received his bachelor's degree from Virginia Tech. He has advanced leadership training through the Professional Executive Leadership School from the University of Richmond Business School, the Key Executive Masters Certificate Program from American University and the Fusion Center Leadership Program from the **Naval Postgraduate School**. Deputy Chief Baumstark is also a graduate of the FBI National Academy.

Jim is happily married to his wife Anne of 31 years. He and his wife have two grown children.

Eric Paulson has over 23 years of law enforcement experience and currently serves as Deputy Chief of Police at the Santa Ana Police Department. Deputy Chief Paulson has served in a full range of assignments including Patrol Officer, Field Training Officer, Patrol Sergeant, Detective, Detective Sergeant, Patrol Watch Commander, Investigations Commander, Special Weapons & Tactics Commander, Field Operations Bureau Chief, and Administration Bureau Chief.

Deputy Chief Paulson earned a Bachelor of Arts in Political Science from Montana State University and a Master of Science in Emergency Services Administration from California State University, Long Beach. He has completed executive leadership training through California's Commission on Peace Officers Standards and Training, FBI – Law Enforcement Executive Development Association, and FBI – National Academy.



Deputy Chief Paulson has been married to his wife, Kristi, for 24 years, and they have a daughter, Haley.

Jim Veltkamp began his career in public service in 1999 when he first joined the Bozeman Police Department, where he currently serves as the Interim Chief and Deputy Chief.

Aside from his current positions, he has worked as a patrol officer, a drug detective with the Missouri River Drug Task Force, a patrol sergeant, the support services captain, and the patrol captain. During his time with the department, he has had the opportunity to be involved in a wide variety of projects focused on connecting the department and community, upgrading technology, improving the overall well-being of officers and staff, and addressing the rapid growth of the City and department.

He believes in increasing transparency, focusing on equity, and serving with humility. He understands that law enforcement must continually adapt to meet the community's needs and expectations and he enjoys the challenge of consistently seeking to improve the delivery of police services.

Prior to working with the department, Jim worked in corporate marketing after obtaining a bachelor's degree in Business Administration. Jim is a graduate of the Montana Law Enforcement Academy, the Montana Executive Leadership Institute, the FBI National Academy, and is a member of the Montana Association of Chiefs of Police and the International Association of Chiefs of Police.

Jim has lived most of his life in the Gallatin Valley and counts it a privilege every day to raise his family here, to be a part of the community, and to enjoy all the area has to offer.

[Search for Bozeman Chief of Police narrowed to three candidates | Regional | kulr8.com](#)

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Capt. Jay Clark Named 2021 Stars and Stripes Black Engineer of the Year

(DVIDS 25 Feb 21)

Capt. Jay Clark, commander, Destroyer Squadron (DESRON) ONE, received the Stars and Stripes Black Engineer of the Year (BEYA) science, technology, engineering and mathematics (STEM) award during a virtual awards ceremony at the annual BEYA STEM conference held Feb. 11-13.

Clark earned the award due to his contributions to STEM and distinction in supporting the Navy's efforts in mentorship, diversity, and value-based service.

Throughout his career, Clark led and mentored many Sailors in engineering in his positions as Engineering and Deck division officer aboard Wasp-class amphibious assault ship USS Kearsarge (LHD 3), Chief Engineer aboard Arleigh Burke-class guided-missile destroyer USS Ross (DDG 71), DESRON TWENTY-EIGHT materiel and logistics office, and Executive Officer and Commanding Officer aboard Arleigh Burke-class guided-missile destroyer USS Roosevelt (DDG 80).

He credits his parents' influence to his accomplishments. "They instilled in me that how much money you make or the status you achieve in life is not the measure of success, and that success is defined by the quality of person you are and how you treat and help others," he said.

The BEYA STEM Awards are among the most competitive awards in science, engineering and technology management, with thousands of professionals in STEM having been nominated for this honor over BEYA's 34-year history.

"This is a great accomplishment and very much warranted," said Rear Adm. Timothy J. Kott, commander, Carrier Strike Group ONE following Clark's selection. "(His) leadership, perseverance, and humility will certainly inspire others to service, command at sea, and great things. (He) is a role model for those that come after him, and the Navy is fortunate to have him leading our Sailors and ships."

Clark was raised in Pembroke, Ga., and is a 1995 graduate of Morris Brown College where he received a Bachelor of Science degree in Computer Science and received his commission through Morehouse Naval ROTC in Atlanta. He earned a Master's Degree in Systems Engineering from the **Naval Postgraduate School** and another Master's Degree in National Security and Strategic Studies from the Naval War College.



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Championing Technology Also Involves Difficult Culture and Process Changes

(Signal 26 Feb 21) ... Kimberly Underwood

During a career spanning 34 years that involved applying information technology (IT) for the military, one of the biggest hurdles was advancing change. It is not only the challenge of providing effective and cybersecure new solutions, but is the combination of that while altering the culture and shifting processes for the better, said Vice Admiral Nancy Norton, USN.

Adm. Norton retires today from military service as the director of Defense Information Systems Agency (DISA) and as the commander of the Joint Force Headquarters Department of Defense Information Networks (JFHQ-DODIN) after three years in that role and her service in the U.S. Navy.

Lt. Gen. Robert Skinner, USAF, arrives at the helm of DISA, following the change of directorship and change of command ceremony with Adm. Norton this afternoon.

“I would say probably the hardest thing is just understanding how best to adapt to change,” said the admiral during a media roundtable yesterday. “In the IT profession, we live with change because technology is changing constantly. And it is learning how to use the technology in a way that makes us more effective and efficient and doesn't increase our cyber security risk. And embracing that change with cultural change and process change, that's really hard.”

Armed with two advanced degrees, a master of science in computer science from the **Naval Postgraduate School** and a masters of arts degree from the Naval War College, Adm. Norton built the knowledge needed to steer the necessary communications, networking and digital solutions to the Defense Department—aided also by her operational experience. Among other positions, she was the director of the Command, Control, Communications and Cyber Directorate for the Pacific Command; director of Warfare Integration for Information Warfare; and the vice director at DISA.

During her tenure at DISA, the agency has evolved, Adm. Norton said, especially in regard to how it serves its mission partners. The admiral made it a key focus to understand how best to meet the needs of its customer core that spans the services, the U.S. Combatant Commands, top military and White House leaders, and support agencies.

“We are always focusing on our mission partners, their mission and helping to understand what it is that they need in order to be successful,” Adm. Norton said. “For example, we have field commands and field sites with each one of the combatant commands. We are co-located, with an O6, a captain or a colonel that is part of that field office. I tell them and the combatant commanders that I have a global view and have to look across all of the combatant commands, services and agencies all of the time, but that each of those sites can be a step on that geographic or functional combatant command's requirements and understand what their priorities are and what their missions are. Then they can be that interface back to the headquarters and the rest of the agency in terms of what is required to support that mission,” the admiral added.

That interface with mission partners helps illuminate the total enterprise services that are common across all areas. It has helped DISA define the expense drivers and decrease costs of adding technology as well as provide technology and services faster. “And I think that's really helped us not just deliver better, but helped us to become much more of a trusted partner,” said Adm. Norton.

And it is these efforts that makes DISA unique as a combat support agency, the admiral continued. “The reason why we were stood up [in 1991 from the Defense Communications Agency established in 1960] was because we needed a joint organization to focus on joint interoperability across the services, and not those unique stove-piped capabilities that were optimized only for a service and a domain and were not for the joint force, because how we fight now [is with a joint force],” she stated.

Adm. Norton warned that cyber threats will continue to be a major problem for the military. “It is very difficult to pace the threat in cyberspace, because it is complex, because the technology is changing and rolled out very rapidly,” she stressed. “And we have a very heterogeneous environment across the DOD and so there's a lot that we have to be constantly watching.”

Moreover, cybersecurity threat awareness, for the nation as a whole, has to greatly improve. “The bottom line is that cyberspace is a dangerous place,” Adm. Norton emphasized. “It is hard work to keep our networks safe and secure and that is not just DOD networks or government networks, but that's everything that we do as a society as we rely on cyber and the capabilities that it affords us. As a culture, I think that we are not very good at understanding the risks that we're living with. You'll see a cool new app on your phone and you download it without even thinking about what it's going to do and how it's taking your data and who it is giving your data to and what access it might be providing to anybody. You have no idea,” she said.

In addition, the admiral served on the staff of the commander of Naval Forces Europe and the U.S. 6th Fleet. However, it was her position as a communications officer for commander of the Cruiser Destroyer Group 12, aboard USS Enterprise (CVN 65), that presented the most indelible experiences during 9/11, she said.

“I was deployed on the Enterprise on 9/11 and I watched on TV the second plane hit and we had just left the Arabian Gulf two days earlier,” Adm. Norton explained. “We were supposed to be heading home, heading South to go around Africa. I saw that plane hit and I knew that things were changing. We didn't have any idea at that point if it was a terrorist attack but I knew that something bad had happened to our nation. We started heading back up the North Arabian Sea to be prepared for whatever was going to happen. The motto of the Enterprise Strike Group was ‘ready on arrival’ and that was very apropos because we were already there, we were ready and we were in the right spot to conduct the first strikes into Afghanistan. On that very first day we recognized that the Strike Group that was supposed to relieve us was actually going to join us and in a couple of hours we had to change all of our communications plans to figure out how to allocate the right communications channels for all of the ships because we were going to be sharing instead of handing them off. So, very quickly we had to adjust to new situation that we were in.

“It has been a really wonderful amazing three year tour as the director of DISA and the commander of the JFHQ-DODIN,” she concluded. “I have loved every minute of this position. It's an amazing opportunity to lead such a fantastic group of people in all of the important missions that we conduct and that we support across the DOD,” the admiral said.

[Championing Technology Also Involves Difficult Culture and Process Changes | SIGNAL Magazine \(afcea.org\)](#)

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From refugee to decorated Army officer, Col. Varman Chhoeung now leads the Presidio

(Signal 26 Feb 21) ... Kimberly Underwood

Col. Varman Chhoeung doesn't remember much of his life before the airplane ride that took him and his parents from the refugee camps of Thailand to San Francisco in 1981. He was 4 years old at the time. When he was 18 months old, his parents left everything behind in Cambodia, fleeing the violence there.

His family settled in Northern Virginia where his father – a teacher, principal and Cambodian Army officer in his former life – mowed lawns and drove taxis before landing a job with the U.S. Postal Service. His mother – who previously worked in a bank – cleaned houses and hotels and eventually got her own job with the Post Office. They welcomed a new child, Chhoeung's sister. (An older brother died in Cambodia before he was born.)

Chhoeung followed his parents' lead, choosing a career in the military. He attended West Point and later joined Special Forces, serving overseas in Kosovo, Iraq, the Philippines and Afghanistan. He's received the Bronze Star and other medals.



On July 9, 2020, he took over command of the Presidio, amid a pandemic and an ambitious plan to add housing in the Ord Military Community of Lower Stilwell in Seaside.

This isn't Chhoeung's first time in Monterey: From 2008 to 2010 he attended **the Naval Postgraduate School**; his son, now a senior at Monterey High School, started kindergarten then in Monterey. "It's kind of neat to come back full circle," Chhoeung says.

How did your family make their way from Cambodia all the way to Virginia?

Chhoeung: My dad fought in the army against the Khmer Rouge. And unfortunately, the country was taken over. As soon as my parents learned they were taking refugees in Thailand, my dad made his way with me in tow, and with my mom, on a four-day bicycle trip from the southeastern part of Cambodia to Thailand. We stayed in the refugee camps until 1981. They were stripping off refugees between France and the U.S. and some other countries. And my dad said, I want to go to the United States. We were sponsored by some church in Richmond, Virginia, we're not exactly sure which church it was. Because if we knew, we would probably make a pretty big donation to that church, in hindsight.

I took a look at the thesis you wrote while you were at NPS about the need for the military to use ethnographic intelligence – understanding the social relationships of a culture – as a way to build trust in other countries. Has the military adopted any of your recommendations?

Not because of my paper. The military always tries to understand the enemy, the friendly situation and terrain we're working in so we can make good decisions on how we can help solve whatever problem it is that we're trying to solve. If you don't understand social dynamics, if you don't understand the people that you're working with, it's hard to develop a path forward and help them advance the national interest, whatever it is.

How do you think your background coming from a refugee camp and landing in the U.S. helped you in the missions you were on?

It gives me a sense of empathy and the ability to adapt to different environments. Those two things help me frame problems to solve them.

What about understanding the social dynamics of Monterey now that you're leading the Presidio?

We provide a stabilizing force to the economy, especially right now with the jobs we provide and the services we provide, the inter-government agreement we have with the city of Monterey. In all my interactions with the neighboring (Peninsula) cities, I always tell them we are teammates to make the community better.

Tell me more about breaking ground on 100 new energy-efficient homes in Seaside, replacing older homes.

Those homes are going to be for junior enlisted personnel. It's an \$80 million-plus project. I think it's pretty awesome. And the great thing is we were able to do that just out of revenue that was generated from the rental income from homes over the last seven or eight years.

Our charter is to provide safe, quality homes to our personnel that live and work here. The energy and water savings across the entire installation is really good for the entire community, not just us.

[From refugee to decorated Army officer, Col. Varman Chhoeung now leads the Presidio. | Face to Face | montereycountyweekly.com](#)

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Vice President Kamala Harris Calls NASA Astronaut Victor Glover

(NASA 27 Feb 21)

In celebration of Black History Month, NASA astronaut Victor Glover welcomed Vice President Kamala Harris to the International Space Station for a virtual chat.

In the video recorded Feb. 24 and shared Saturday, the conversation ranged from the legacy of human spaceflight to observing Earth from the vantage of the space station, Glover's history-making stay aboard the orbiting laboratory, and preparing for missions from the Moon to Mars.



Victor Glover is a long-duration crew member on the International Space Station. He served as the Crew Dragon pilot and second-in-command for NASA's SpaceX Crew-1 mission. Glover is responsible for spacecraft systems and performance.

Selected as an astronaut in 2013, the California native holds a Bachelor of Science degree in general engineering from California Polytechnic State University, a Master of Science degree in flight test engineering and a master's degree military operational art and science from Air University, and a Master of Science degree in systems engineering from **Naval Postgraduate School**. Glover is a naval aviator and was a test pilot in the F/A-18 Hornet, Super Hornet, and EA-18G Growler aircraft. Follow Glover on Twitter and Instagram.

For more than 20 years, humans have lived and worked continuously aboard the International Space Station, advancing scientific knowledge and demonstrating new technologies, making research breakthroughs not possible on Earth. As a global endeavor, 242 people from 19 countries have visited the unique microgravity laboratory that has hosted more than 3,000 research and educational investigations from researchers in 108 countries and areas. The space station remains the springboard to America's Moon to Mars exploration approach, including Artemis missions to the Moon to prepare for human exploration of the Red Planet.

[Vice President Kamala Harris Calls NASA Astronaut Victor Glover | NASA](#)

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Thank You For Being A Friend: NATO, Iraq And The Benefits Of The Alliance – Analysis

(EURASIA Review 28 Feb 21) ... USA Maj. Tim Ball

After a recent meeting of defense ministers in Brussels, NATO Secretary-General Jens Stoltenberg announced that the Alliance would expand the size of its security training mission in Iraq, increasing troop levels from 500 to 4,000. The move comes less than a month after the inauguration of President Joseph Biden and signals the continued effort to repair the relationship between the United States and the Alliance after four years of degradation during the Trump administration. While NATO has provided continuous contributions to operations in Iraq since 2004, it suspended training activities in January 2020 after the unilateral decision by the United States to assassinate Iran's Quds Force Commander Qasem Soleimani outside the Baghdad Airport.

NATO's commitment to resume and to increase training of Iraqi security forces represents an important step in the return to normalcy for the United States and the Alliance, in addition to advancing mutual security objectives for its members. Increased contributions from NATO in Iraq will further those objectives by preventing a resurgence of the Islamic State, countering Iranian influence, and freeing up valuable resources for deterrence efforts against Russia in Eastern Europe.

The Continued Fight Against ISIS

In 2014, the Iraqi Army all but collapsed in the face of ISIS offensives across northern Iraq. By the end of that year, a Global Coalition to Defeat ISIS had been established, with NATO contributing forces into Iraq. While unified under Combined Joint Task Force Inherent Resolve (combined referring to the multi-national element of the task force), each contributing nation had different rules and restrictions for its forces. While some were allowed to participate in kinetic operations, others began work on the long-term effort of training Iraqi security forces. This training mission was a key line of effort in Inherent Resolve's campaign plan, enabling a sustainable military partner capacity by training, advising, assisting, and equipping.

By the end of 2017, Iraq had reclaimed 95% of lost territory and Prime Minister Haider al Abadi declared victory over ISIS. A year later, President Donald Trump declared ISIS defeated in Syria and announced his intention to withdraw all U.S. troops from the country. Despite these assertions, ISIS has managed to remain a threat within the region, in addition to maintaining influence globally. General Joseph Votel, then-Commander of U.S. Central Command, warned Congress in 2019 that ISIS was not



surrendering, but instead making a “calculated decision” to retreat and preserve what little capability it still maintained.

As NATO prepares to resume and increase its training mission in Iraq, small pockets of ISIS fighters continue to launch attacks in Iraq itself and claim credit for deadly attacks by its sympathizers in Europe. While it has been several years since an ISIS-inspired attack in the United States, the group remains a shared threat for the U.S. and its NATO partners. By recommitting to the training mission and increasing the number of trainers, non-U.S. NATO members are helping to ensure their own security at home. Meanwhile, the United States receives assistance in meeting its own national security objective of combating violent extremist organizations that pose a threat to its citizens at home and abroad.

Countering Iranian Influence

Shortly after entering office, the Trump administration began a “maximum pressure” campaign against Iran. The campaign did little to alleviate concerns over Iran developing a nuclear weapon, or to stop its sponsorship of violent proxy groups across the Middle East. Instead, “maximum pressure” and the U.S. decision to withdraw from the Joint Comprehensive Plan of Action (JCPOA) spurred Iran into increasing its uranium enrichment program while alienating U.S. allies in Europe who wished to keep the JCPOA in place. The assassination of Soleimani provided the United States with a brief sense of accomplishment, but it also violated the tenuous truce between coalition forces in Iraq and the Iran-sponsored Popular Mobilization Forces (PMF). Iran responded by launching a missile attack on a U.S. base, and violence has continued into the Biden administration with a recent attack on a U.S. base in Erbil that killed one contractor and injured nine others.

The Biden administration has already started the delicate diplomatic dance of attempting to re-join the JCPOA. However, even if it succeeds in getting Iran to abandon further development of a nuclear weapon, the influence of Iranian proxy groups across the Middle East will remain problematic, especially in Iraq. The PMF, formed in 2014 in response to ISIS, continues to operate throughout Iraq and has grown more problematic since the territorial defeat of ISIS.

The NATO training effort can help to counter the influence of the PMF over the Iraqi population, primarily by continuing to build a competent security apparatus that the public has faith in. This would allow the Iraqi government to act from a position of strength in confronting the militias, eventually overseeing their disbandment. Removing the PMF from Iraq would be a major blow to Iran and a major win for the United States. By utilizing a multinational effort under the NATO flag, it also starts to remove the perception that Iraq is simply a pawn stuck between the United States and Iran and, instead, shows the Iraqi people that the international community remains invested in their future.

Deterring Russia

The 2018 National Defense Strategy declared that “inter-state strategic competition, not terrorism, is now the primary concern in U.S. national security.” With the Russian Federation and People’s Republic of China mentioned specifically, the document outlined a shift away from combating violent extremist organizations to confronting those two countries and their global influence. Despite naming Russia as a primary concern, the Trump administration spent most of its four years berating NATO, conflating defense spending with collective contributions, and announcing that a large portion of U.S. forces in Germany would be withdrawn or relocated.

Upon taking office, Secretary of Defense Lloyd Austin’s first phone call was to NATO Secretary-General Jens Stoltenberg, signalling that the new administration was eager to re-establish this important relationship and forge a new way ahead. President Biden confirmed this intent when he reiterated commitment to the Alliance and declared that “America is back” when addressing the Munich Security Conference. While the NATO commitment to providing forces to Iraq is clearly a boost to American national security objectives in the Middle East, it also helps the United States as it seeks to deter Russian aggression.

Military resources, especially troops, are finite. Even with the United States’ sizeable military, there’s only so much to go around. This has created a delicate balancing act, as policymakers prioritize where troops are needed. By committing 4,000 troops to the training mission in Iraq, NATO is freeing up nearly an entire brigade of combat power for the United States to use elsewhere. The U.S. has been rotating



brigades into Eastern Europe on a consistent basis since the Russian invasion of Crimea and has been committing advisors to Ukraine since 2016 to assist in the fight against Russian-sponsored separatists. By helping to ease U.S. commitments in the Middle East, NATO members are allowing those forces to contribute in Europe, which enhances to their own security against Russia. It's just one more example of members of the Alliance helping themselves by helping each other.

Alliances are often complicated and difficult things. The NATO Alliance itself has endured over 70 years of turmoil, but has always emerged stronger from its challenges along the way. With NATO's decision to expand its training program in Iraq, the Alliance is signalling that it is still committed to supporting mutual security objectives and to keeping its members safe and secure. The United States would do well to capitalize on this opportunity and continue to re-energize its relationship with NATO. By doing so, it will ensure that whenever conflict does happen, there will be no shortage of friends ready to join the fight.

The views expressed in this article are those of the author alone and do not necessarily reflect the position of the Foreign Policy Research Institute, a non-partisan organization that seeks to publish well-argued, policy-oriented articles on American foreign policy and national security priorities.

About the author: Major Tim Ball is a U.S. Army Special Forces officer. He has served in 10th Special Forces Group (Airborne) and at NATO Special Operations Headquarters, with multiple tours in Iraq and assignments throughout Europe. Major Ball holds a BA in Political Science from Texas A&M University, and an MS in Defense Analysis (Irregular Warfare) from the **Naval Postgraduate School** in Monterey.

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ENGINEERING:

NAVFAC Southwest Engineers and Designer of the Year Recognized During National Engineers Week

(DVIDS 23 Feb 21) ... Mario Icarl

Naval Facilities Engineering Systems Command (NAVFAC) Southwest's Dr. Michael Fraser was recognized as 2021 NAVFAC Southwest Civilian Engineer of the Year, CDR Peter Benson was recognized as 2021 NAVFAC Southwest Military Engineer of the Year, and Richard Suda was recognized as 2021 NAVFAC Southwest Designer of the Year during a NAVFAC Southwest virtual Engineers Week Event held Feb. 23.

"In honor of National Engineers Week, I would like to recognize our engineers and architects who have addressed challenges to numerous threats to our nation including a pandemic, national security, and manmade and natural disasters," said Capt. Michael Oestereicher, NAVFAC Southwest commanding officer. "Our engineers are breaking down barriers and creating solutions for infrastructure modernization, resiliency, cybersecurity and mass telework in support of Navy and global missions. In addition, I am pleased to recognize the 2021 NAVFAC Southwest civilian and military engineer and architect of the year."

Dr. Michael Fraser is a senior geotechnical engineer at DCBL providing expertise on almost every project in the Navy's Southwest area of responsibility spanning 19 Navy and Marine Corps bases. Through his leadership, technical expertise and extensive knowledge of earthquake faults, he works with engineering firms to follow complicated provisions of construction near these active faults, especially at Naval Base Coronado and after the July 2019 earthquakes at NAWS China Lake. Fraser also spends his time volunteering at the Antique Gas and Steam Engine Museum in Vista, Calif., focusing on collection, preservation, and display of equipment associated with early American farming and construction.



CDR Peter Benson is a civil engineer serving as the Public Works Officer at Naval Air Weapons Station China Lake. He leads a workforce of 315 personnel who manage facilities maintenance, construction, environmental, and services program. Benson led the recovery effort from the magnitude 6.4 and 7.1 earthquakes during the July 4th holiday in 2019, assessing 1784 buildings for safe occupancy and developing a \$3 billion recovery program. Benson, on his off time, has spent time volunteering with the Boy Scouts of America as Scout Master Troup, and the Church of Jesus Christ of Latter-day Saints as a Sunday school instructor and Elders Quorum first counselor.

Richard Suda, NAVFAC Southwest senior architect, provides mentoring and guidance to junior architects. He has recently focused his skills and expertise on the high profile MQ-25 and MQ-40 unmanned aircraft program at Naval Base Ventura County, as well as the \$400 million upgrade and modernization of the **Naval Postgraduate School Campus at Monterey**. He consistently provides design and technical skills to ensure all projects are of the highest quality within the budgetary and schedule constraints. Suda is also the subject matter expert on Anti-Terrorism Force Protection for DCBL providing guidance for all Marine Corps projects. Suda volunteers with several organizations outside of his official duties which include being a scout leader, a trustee for the Knights of Columbus, coaching Little League baseball, and sitting on the advisory board for the Fall Festival.

“It is always challenging to find the top candidates from a pool of great engineers and designers at NAVFAC Southwest, but those three individuals reflect the excellence of our Command and deserve the recognition for their accomplishments,” said John Coon, NAVFAC Southwest chief engineer and Design & Construction business line (DCBL) leader.

NAVFAC Southwest's Military and Civilian Engineers and Designer of the Year annual awards recognizes engineers, architects, landscape architects, and interior designers who portray excellence in engineering achievements, civic and humanitarian activities, as well as professional and technical activities. NAVFAC Southwest Engineers of the Year are submitted to further compete in National Society of Professional Engineer's national awards program.

[DVIDS - News - NAVFAC Southwest Engineers and Designer of the Year Recognized During National Engineers Week \(dvidshub.net\)](#)

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