



# NPS IN THE NEWS

## Weekly Media Report – Feb. 16-22, 2021

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### EDUCATION:

#### 1. [NPS Expands Coursework in Great Power Competition, Focused on China](#)

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The Naval Postgraduate School (NPS) is once again expanding its graduate education offerings on the subject of Great Power Competition (GPC). While NPS has recently launched a distance learning GPC certificate program, NPS' Department of National Security Affairs (NSA) will launch two in-resident courses next year focused on the People's Republic of China that will allow military officers and DOD civilian employees to deepen their understanding of this peer nation in today's strategic context.

#### 2. [NPS to Launch New Maritime Security Certificate Supporting Naval Strategies](#)

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With the recent release of the [Tri-Service Maritime Strategy Advantage at Sea](#) and the [Chief of Naval Operations \(CNO\) Navigation Plan](#) – strategies for the Navy to project power and sea control amid competition – the Naval Postgraduate School (NPS) is building a new in-resident maritime security certificate program to further educate our international naval officers on maritime domain challenges.

### RESEARCH:

#### 3. [Xerox and Naval Postgraduate School Announce Collaboration to Advance Solutions with 3D Printing Research](#)

*(Business Review 19 Feb 21) ... Mihai Cristea*

Xerox and the Naval Postgraduate School (NPS) announced today a strategic collaboration focused on advancing additive manufacturing research, specifically 3D printing, which has the potential to dramatically transform the way the military supplies its forward-deployed forces.

#### 4. [Additive Insight: Xerox's Tali Rosman on 3D printing, workflows and supply chain \(Audio Interview\)](#)

*(TCT Magazine 19 Feb 21)*

On this episode of Additive Insight, TCT Head of Content Laura Griffiths is joined by Tali Rosman, Xerox Vice President and General Manager for 3D Printing.

The well-known 2D print giant made its play for the additive manufacturing market back in 2019 with the acquisition of start-up Vader Systems and its Liquid Metal 3D printing technology. Since then, Xerox has gone on to introduce its first metal system, the Xerox ElemX, and recently announced the **Naval Postgraduate School (NPS)** as its first installation.



## **5. Navy school takes delivery of Xerox's first liquid-metal printer**

*(The Fabricator 18 Feb 21)*

*(JD Supra 16 Feb 21)*

Xerox and the Naval Postgraduate School (NPS) have formed a strategic collaboration focused on advancing additive manufacturing, a technology that the Navy believes has the potential to dramatically transform the way the military supplies its forward-deployed forces.

## **6. Intuitive, NPS-Developed Behavior Analysis Tool Now Accessible to the Public**

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From drone communication to supply chain optimization, the web-based behavior modeling tool Monterey Phoenix (MP) Firebird, developed at the Naval Postgraduate School (NPS), has already been used by many different research projects since it was first released online in 2015 due to how widely useful emergent behavior analysis is. And now, the open-source tool is free and available to the public through the NPS Gitlab website.

## **FACULTY:**

## **7. CBS News Special: America Changed Forever [Audio Interview]**

*(CBS News 19 Feb 21) ... Gil Gross*

On this week's "America Changed Forever," supply chain expert, Air Force Major Daniel Finkenstadt from Naval Postgraduate School, diagnoses the significant problems in the distribution of the COVID19 vaccines. In an interview with Gil Gross, he explains why it won't be getting better any time soon. Economist Arin Dube has radically changed economists' views about increasing the minimum wage, ending decades of ignorance about the positive effect minimum wage increases will have on businesses. And, Electricity Grid Expert Ed Hirs, who predicted the catastrophe in Texas years ago, explains how and why it happened and what needs to change before it happens again.

## **8. Navy Cyber Defense Operations Command Retires a Cyber Forensics and Training Officer**

*(DVIDS 16 Feb 21) ... Rebecca Siders*

Lt. Cmdr. Todd Sehl, Navy Cyber Defense Operations Command (NCDOC), a Naval Postgraduate School alumnus, deputy training department head, retired from the Navy during a ceremony in the Hall of Heroes Auditorium, Feb.12.

## **9. Medically Necessary: IT systems slow vaccine rollout, new vaccines add complications**

*(Freight Waves 16 Feb 21) ... Matt Blois*

Good Afternoon. Medically Necessary is a newsletter about the health care supply chain, how we get drugs, devices and medical supplies to health care providers and patients... **Daniel Finkenstadt, a researcher at the Naval Postgraduate School** who has worked on COVID-19 supply chain issues for the last year, said that could introduce a new problem. (Finkenstadt's views are his personal opinion and don't represent the views of the U.S. military, the Naval Postgraduate School or the federal government.)

## **10. Livermore: Teens tested in 'Traitor in the Realm'**

*(Pleasanton Weekly 17 Feb 21) ... Dolores Fox Ciardelli*

Two teenage foster siblings find themselves trapped in a treacherous magical world in "Traitor in the Realm," a young adult fantasy novel by Patricia J. Boyle that was released last month. The teens must balance their desire to return home with a call to rescue a medieval kingdom from destruction by a royal traitor... Boyle worked as a research meteorologist at the **Naval Postgraduate School** in Monterey and moved with her family to Livermore in 1991. She taught math and science in Livermore schools for nearly two decades before retiring.

## **11. The Potomac Institute Welcomes Brian Hibbeln as a Senior Fellow**

*(Homeland Security Today 20 Feb 21)*

The Potomac Institute has welcomed Brian Hibbeln as a Senior Fellow. Hibbeln is a Venture Partner at SineWave Ventures, a firm dedicated to accelerating new technologies, and he has spent 23 years as an Air Force Reserve Officer with assignments at both the National Air and Space Intelligence Center (NASIC) and the National



Reconnaissance Office (NRO). His final assignment was to the Mission Support Directorate of the NRO... Hibbeln recently served as the director of the **Naval Postgraduate School's Remote Sensing Center-National Capital Region**, where he managed over \$8B in U.S. government contracts. The Remote Sensing Center supported the DOD and U.S. Intelligence Community with technology demonstrations and operational support to combatant commanders around the world.

## **12. More than Just Friends? New Azerbaijan-Turkmenistan Agreement on Joint Energy Production in the Caspian Sea**

(*Central Asia-Caucasus Analyst 16 Feb 21*) ... Brenda Shaffer

On January 21, 2021 the Presidents of Azerbaijan and Turkmenistan signed an intergovernmental Memorandum of Understanding (MOU) for joint development of the newly named Dostluq (friendship in Azerbaijani and Turkmen languages) oil and natural gas field. This agreement will likely facilitate multiple new ventures in oil and gas in the Caspian Sea. It also reflects the mutual desire of the two states for increased cooperation in multiple spheres beyond energy and is the result of increased contacts between the two neighboring countries over the last two years. Increased cooperation between Azerbaijan and Turkmenistan is likely to emerge beyond the sphere of energy... **Dr. Brenda Shaffer is a Research Faculty member of the US Naval Postgraduate School**, a Senior Fellow at the Atlantic Council's Global Energy Center and a Senior Advisor for Energy at the Foundation for Defense of Democracies (FDD) think tank. She is the author of *Energy Politics* (University of Pennsylvania Press), which is used as a textbook in over 200 university courses.

## **13. Iran's Latest Wave of Electricity Outages**

(*FDD.org 16 Feb 21*) ... Brenda Shaffer

Iran has experienced extensive electricity outages across the country in recent weeks, with air pollution levels soaring as Iranians employ polluting fuels to generate power. The country's electricity supply problems will likely worsen in the coming months, since natural gas shortages in Iran look likely to continue and Armenia plans to shut down for maintenance a nuclear power plant that exports half its output to Iran via Armenia's power grid... Brenda Shaffer is a senior advisor for energy at the Foundation for Defense of Democracies (FDD), where she also contributes to FDD's Iran Program and Center on Economic and Financial Power (CEFP). She is also a faculty member at the U.S. **Naval Postgraduate School**. For more analysis from Brenda, the Iran Program, and CEFP, please subscribe [HERE](#). Follow Brenda on Twitter @ProfBShaffer. Follow FDD on Twitter @FDD and @FDD\_Iran and @FDD\_CEFP. FDD is a Washington, DC-based, nonpartisan research institute focusing on national security and foreign policy.

## **COMMENTARY:**

## **14. Unfurl the Banner! Privateers and Commerce Raiding of China's Merchant Fleet in Developing Markets**

(*War on the Rocks 18 Feb 21*) ... Christopher D. Booth and Walker D. Mills

The first rays of sunlight splayed across the calm coastal waters as Steele steered the fast-boat toward the target. Since graduating as a U.S. Navy Special Warfare Combatant-Craft Crewman over a decade ago, he had rehearsed and conducted intercepts like this hundreds of times. He subconsciously compared wave states to those he had encountered off Coronado, Virginia Beach, and foreign war zones and adjusted the throttle and steering of his powerful craft accordingly. A week ago, his unit had been providing counter-piracy training for Somaliland's coast guard, but then tensions in the South China Sea erupted into conflict. Now Steele and his team had become commerce raiders preying on the large vessels operated by Chinese state-owned enterprises and carrying natural resources from Africa to China... Capt. Walker D. Mills is a Marine infantry officer. He is currently serving as an exchange officer at the Colombian Naval Academy. He is a non-resident Master of Arts student at the **Naval Postgraduate School's Center for Homeland Security and Defense**. He holds an M.A. in International Relations and Modern War from King's College London and received a B.A. from Brown University.



## ALUMNI:

### **15. WashingtonExec to Posthumously Honor Dr. J. Phillip "Jack" London with Lifetime Achievement Award**

*(Yahoo Finance 17 Feb 21)*

The Lifetime Achievement Award recognizes Dr. London's career achievements, how he led and grew CACI, and his contributions to the national security market... Dr. London is also remembered and honored for his illustrious U.S. Navy career, having served 12 years of active duty during the Cold War — which included 33 at-sea deployments — followed by 12 years in the Navy Reserve and retiring as a naval captain in 1983. He was a graduate of the U.S. Naval Academy and **Naval Postgraduate School**, was inducted into the **Naval Postgraduate School Hall of Fame** in 2011, and honored with the U.S. Naval Academy Distinguished Graduate Award in 2019.

### **16. Napa Appoints Interim Police Chief**

*(Patch 18 Feb 21) ... Maggie Fusek*

The city of Napa has selected Sylvia Moir to serve as interim chief of police... Moir earned a bachelor's degree in criminal justice from California State University, Sacramento, a master's degree in organizational management, and a master's degree from the **Naval Postgraduate School**-Center for Homeland Defense and Security.

### **17. GAPS names new director of operations**

*(Gazette Times 18 Feb 21) ... Caitlyn M. May*

Russ Buttram is the new executive director of operations for Greater Albany Public Schools.

The announcement was made on Monday... Buttram graduated from South Albany High School in 1992 and went on to earn a bachelor's degree in business from Oregon State University. He served in the Marine Corps until 2016, earning a master's degree in systems analysis from the **Naval Postgraduate School** in 2008.

### **18. Six candidates to interview for Bozeman Police Chief**

*(KBZK Bozeman 19 Feb 21) ... Caitlyn M. May*

BOZEMAN — After a nationwide recruitment and screening process that attracted 69 candidates, the City of Bozeman has invited six candidates to interview for the Chief of Police position... 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**.

### **19. MCSC, MCTSSA 'Utilize' NPS graduates**

*(DVIDS 19 Feb 21) ... Amy Forsythe*

Many of the officer billets at Marine Corps Systems Command and Marine Corps Tactical Systems Support Activity are filled with Marines who recently graduated with a master's degree from Naval Postgraduate School, located in Monterey, California.

### **20. BGHS grad to the rescue, helps freezing turtles in Texas**

*(Sentinel-Tribune 20 Feb 21) ... Roger LaPointe*

Sea turtles are the latest victims of the winter storms and freezing temperatures in Texas, but rescue efforts from volunteers like Bowling Green native and naval officer Susan Johnson are giving 300 of them a fighting chance... When Susan was attending **Naval Postgraduate School** in Monterey, California, to complete her Master of Aerospace Engineering degree last year, sea turtles would join her while she was SCUBA diving in Monterey Bay. Laura said she loves swimming with the peaceful turtles.

### **21. Engineers Week Spotlight: Cmdr. Cory Maccumbee's Engineering Base is a Firm Foundation for Success**

*(DVIDS 21 Feb 21) ... Matthew Stinson*

Cmdr. Cory Maccumbee, assistant operations officer, Magellan Team, is representing Naval Facilities Engineering Systems Command (NAVFAC) Washington for National Engineers Week. He serves in the Operations Business Line at NAVFAC Washington's Core in Washington D.C... Cmdr. Maccumbee earned a master's degree



in systems engineering analysis from the **Naval Postgraduate School**, as well as a master's degree in engineering project management from the University of Maryland. He attributes much of his success, especially at NAVFAC Washington, to his engineering background.

## **UPCOMING NEWS & EVENTS:**

**February 23:** [Seapower Conversation: Atomic Clock & Quantum Sensors](#)

**March 02:** [Seapower Conversation: Quantum Communications & Computing](#)

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





## EDUCATION:

### **NPS Expands Coursework in Great Power Competition, Focused on China**

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The Naval Postgraduate School (NPS) is once again expanding its graduate education offerings on the subject of Great Power Competition (GPC). While NPS has recently launched a distance learning GPC certificate program, NPS' Department of National Security Affairs (NSA) will launch two in-resident courses next year focused on the People's Republic of China that will allow military officers and DOD civilian employees to deepen their understanding of this peer nation in today's strategic context.

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The Chief of Naval Operations' (CNO) NAVPLAN 2021 reports that China is the United States' most pressing long-term strategic rival in the space, sea and information domains, and is aggressively building a navy and worldwide infrastructure not to just rival the U.S., but to eventually exert control of critical waterways. Therefore, these two courses, "Science, Technology and Society in China" and "People's Liberation Army" (PLA), will help students intellectually and contextually grasp China's history and what may be behind some of its political, economic and defense motivations.

"China is becoming a leading scientific and technological power," said Assistant Professor Dr. Covell Meyskens, who will teach the science and technology course. "It is imperative that the United States gain a better understanding of China's goals, the challenges that China faces in realizing its aspirations, and the consequences that Chinese technological and scientific developments are having for both China and the world."

Meyskens explains that the course will examine how science, the Chinese government and society have all interacted over the course of the nation's history, and how reactions to the challenges of great power competition have influenced state-led efforts to expand China's technological and scientific capabilities.

"Students will obtain a solid understanding of the major drivers of scientific and technological change in Chinese history as well as a critical comprehension of major scientific and technological issues in contemporary China," Meyskens added. "With this knowledge base, students will be better equipped to address the many challenges that China's rise as a technological great power pose for the United States and our allies around the world."

In addition to China's advancing science and technology, the CNO NAVPLAN reports that People's Liberation Army – Navy is deploying jointly with the Chinese Coast Guard and Maritime Militia creating challenges for regional nations. NSA Senior Lecturer Dr. Michael Glosny will teach the "People's Liberation Army" (PLA) course, scheduled to begin in early 2022, which will examine the origins and historical development of the PLA and its modernization over the last two decades.

"[Great Power Competition] challenges include economics, politics, ideology, and the military," said Glosny. "In the NSA curriculum, we already offer courses on Chinese foreign policy, politics, economics and history. As PLA modernization has deepened, in consultation with OPNAV, we have recognized that we need to provide our students more opportunities to learn about the PLA and its implications for security and stability of the United States and its allies and partners in the Indo-Pacific."

According to Glosny, the course will offer students a deeper understanding of the PLA organization such as its military strategy, capabilities, roles and missions, and its future trajectory. Students will also examine weaknesses and shortcomings in the Chinese military that the U.S. could leverage as an advantage in addition to discussing possible U.S. and allied responses to PLA modernization.



“This course on the PLA focuses better understanding the behavior and mindset of our adversaries,” said Glosny. “Deeper knowledge of our peer nations like China is essential to ‘instinctively act inside their decision cycles,’ as the 2021 NAVPLAN suggests.”

Both Meyskens and Glosny noted that, as a military institution, aligning education to give a better understanding of peer-nation competitors is vital. To understand China’s efforts to transform itself in science and technology, as well as its military into a maritime great power is to be better equipped to adapt to it.

Both courses will contribute to NPS’ 682 Security Studies - East Asia degree program and are being developed to potentially be offered as part of the Distance Learning Great Power Competition Certificate program.

[NPS Expands Coursework in Great Power Competition, Focused on China > United States Navy > News-Stories](#)

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The CNO Navigation Plan specifically calls for the Navy to, “remain the best trained and educated force in the world,” and that the Navy will deploy forward, “alongside our allies and partners—to deter aggression and preserve freedom of the seas.”

Supporting these ideals, NPS’ School of International Graduate Studies’ (SIGS) new certificate program will focus on multiple aspects of maritime security, including strengthening relationships with allies and partner countries with both international and U.S. students at NPS learning together. The program is scheduled to commence in the 2021 Fall Quarter.

“I think it’s an exciting opportunity for NPS, for our students and for our partners,” said Dept. of National Security Affairs Senior Lecturer, Dr. Michael Malley. “If you just think about that new maritime strategy, it lays out five lines of effort and the first one is maritime security. This is a continuing interest of the [Department of Defense] and the [Department of the Navy], so it’s an exciting opportunity to address an issue of such high priority by drawing on all of the resources of NPS.”

The certificate will consist of a new Maritime Security Cooperation course, which will provide the theory and practice of global maritime security operations, as well as include two existing courses, such as Great Power Competition: Current Policy and Strategy, and Security Sector Assistance in an Era of Great Power Competition. Students may also choose from an approved list of courses focused on regional security in one part of the world where maritime security is a crucial issue.

“This program is going to help those international partners and international students interact and interface with us better throughout our own defense complex,” noted U.S. Navy Capt. Sean Hays, SIGS Military Associate Dean. “It’s also going to help our officers build those bridges to work with their international counterparts as partners and allies. This course will make those international naval connections easier and smoother early on and help make them last for the length of all of these officers’ and students’ careers.”

While the maritime certificate may be new, Hays and Malley both noted that the theme of maritime security, and focus on strengthening alliances and partnerships, has been prevalent throughout both National Defense and National Security Strategies in recent history.



“These are all the same ideas, to build partnership and alliances, and to make sure we have the international connections, partnerships and frameworks to provide security worldwide to make sure we are safe here at home,” said Hays.

According to Malley, the key to maritime security cooperation is working closely with our partners and allies, and that is not something new – it’s enduring.

<https://www.navy.mil/Press-Office/News-Stories/Article/2511514/nps-to-launch-new-maritime-security-certificate-supporting-naval-strategies/>

<https://nps.edu/-/nps-to-launch-new-maritime-security-certificate-supporting-naval-strategies>

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## RESEARCH:

### **Xerox and Naval Postgraduate School Announce Collaboration to Advance Solutions with 3D Printing Research**

*(Business Review 19 Feb 21) ... Mihai Cristea*

Xerox and the Naval Postgraduate School (NPS) announced today a strategic collaboration focused on advancing additive manufacturing research, specifically 3D printing, which has the potential to dramatically transform the way the military supplies its 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 Xerox solution will provide NPS faculty and students with hands-on exploration of new ways the technology can deliver on-demand 3D printing of metal parts and equipment.

“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.”

With access to the latest additive manufacturing equipment, NPS faculty and students will use the ElemX printer 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.”

The Xerox ElemX printer uses cost-effective aluminium wire to fabricate end-use parts that can withstand the rigours of operational demands. This ability to produce reliable replacement parts on-demand reduces the dependency on complex global supply chains for deployed forces. Also, it addresses the hidden costs of traditional manufacturing.

“The NPS Alumni Association and Foundation supported bringing the ElemX liquid metal printer to NPS because it will enable soldiers, sailors, airmen, and marines to solve their problems where they are when problems occur,” noted retired U.S. Marine Corps Col. Todd Lyons, vice president of the NPS Alumni Association and Foundation. “By providing 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 Department of Defence (DoD) thinks operationally.”





“This is one way to bend the cost curve so that the DoD is not spending a thousand dollars for every dollar that a peer competitor spends,” he added.

“Global supply chains leave industries like aerospace, automotive, heavy equipment, and oil and gas vulnerable to external risks,” said Tali Rosman, vice president and general manager, 3D Printing, Xerox. “Our goal is to integrate localised 3D printing into their operations, and the real-time feedback from NPS gives us actionable data to continuously improve the ElemX.”

The Collaborative Research and Development Agreement (CRADA) does not imply endorsement of Xerox or its products by the Naval Postgraduate School, the Department of the Navy, or the Department of Defence.

[Xerox and Naval Postgraduate School Announce Collaboration to Advance Solutions with 3D Printing Research - Business Review \(business-review.eu\)](#)

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### **Additive Insight: Xerox's Tali Rosman on 3D printing, workflows and supply chain**

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On this episode of Additive Insight, TCT Head of Content Laura Griffiths is joined by Tali Rosman, Xerox Vice President and General Manager for 3D Printing.

The well-known 2D print giant made its play for the additive manufacturing market back in 2019 with the acquisition of start-up Vader Systems and its Liquid Metal 3D printing technology. Since then, Xerox has gone on to introduce its first metal system, the Xerox ElemX, and recently announced the Naval Postgraduate School (NPS) as its first installation.

We spoke to Rosman about Xerox’s history with 3D printing, which began long before that 2019 acquisition, Xerox’s commitment to being its own first customer with its AM products, and the company’s pragmatic approach to ensuring additive can be easily integrated into existing workflows and supply chains.

Commenting on those workflows, Rosman said: “I think we’re humble enough to understand that the vast majority of parts are not going to be made with 3D printing so we have to integrate into existing workflows and we have the obligation to make it easy for the customer to integrate it into their existing systems - that’s absolutely top of mind for us.”

[#54 Additive Insight: Xerox's Tali Rosman on 3D printing, workflows and supply chain - TCT Magazine](#)

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As part of a CRADA (Collaborative Research and Development Agreement), NPS was the first organization to take delivery of the Xerox ElemX liquid-metal printer. The machine, delivered in December, provides NPS faculty and students with hands-on experience as they study the ways 3D printing metal parts can improve naval supply chains.

“The military supply chain is among the most complex in the world, and NPS understands firsthand 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.”



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[Navy school takes delivery of Xerox’s first liquid-metal printer \(thefabricator.com\)](#)

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## **Intuitive, NPS-Developed Behavior Analysis Tool Now Accessible to the Public**

*(Navy.mil 19 Feb 21) ... Rebecca Hoag*

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From drone communication to supply chain optimization, the web-based behavior modeling tool Monterey Phoenix (MP) [Firebird](#), developed at the Naval Postgraduate School (NPS), has already been used by many different research projects since it was first released online in 2015 due to how widely useful emergent behavior analysis is. And now, the open-source tool is free and available to the public through the NPS Gitlab [website](#).

MP models a wide range of system behaviors, bridging computer science and systems engineering to reduce human error in the systems design process before a single line of code is ever written or prototype ever formed. In other words, MP looks at almost any system design situation that is thrown at it and visualizes them via process flow charts in a simplified way for its users.

According to NPS Associate Professor Kristin Giammarco, even though the human brain is amazing at thinking through different behavioral scenarios, a behavior modeling tool like MP can help the human brain fill in the blanks in emergent behavior analysis.

“The human knows how to do all the things the automated tool does but can do more,” Giammarco explains. “We just offload the repetitive and time-consuming tasks to the automatic tool to free up the human’s cognitive resources for things currently only humans can do. That is, for reasoning through behavior logic, accessing experience and intuition, and applying imagination to predict possible states for the systems being modeled. The automated tool does all the heavy lifting of computation and scenario generation, so that the human may focus on analysis and refinement of the scenarios being presented.”

Giammarco was handed the reins for the MP software from its founder Dr. Mikhail Auguston upon his recent retirement from NPS. Auguston has worked to create languages that can bridge communication between humans and computers for about 30 years. He notes that MP is instinctual, and says those instincts are better for analysis in the way decimal notation is better for calculation than roman numerals.

The National Security Agency (NSA)’s National Cryptologic School (NCS) recently sponsored a pilot MP Virtual Internship Program for 60 college student selectees with a wide variety of majors ranging from cybersecurity to psychology. The students found a substantial number of unexpected emergent behaviors over their four-week, part-time program.

“NSA’s National Cryptologic School is thrilled to have partnered with another defense education institution to bring this phenomenal software and framework to our military interns,” NCS Commandant Diane Janosek says. “Partnerships like this one between NCS and NPS are the wave of the future – coming together for our nation. It takes collaboration between private industry, government, and academia to keep our nation safe. We are proud to serve!”

### **How Monterey Phoenix Works**

MP consists of a simple event grammar to describe order of events and prioritization of said events. It will continue to look exhaustively for all possible scenarios from this given information until it’s told to



stop by leveraging the Small Scope Hypothesis to expose any errors in the user’s thinking. Giammarco likens the scenario discovery process to observing the behavior of a child after being given instructions.

“Precocious children, for example, can get quite creative with instructions,” she says. “You could tell them to do something, and though they’ll do it, they may do it in a way that you did not anticipate. You just didn’t realize your assumptions at the time of initial instruction.

“It’s the same for system behavior,” she continued. “All those scenarios MP presents help you think about all the possible ways your behavior logic could be carried out. Some ways may be expected; others may be unexpected. Some ways may be acceptable, others unacceptable. MP gives you a way to think about more scenarios in advance and update the logic until it captures exactly what you mean.”

Auguston developed several MP prototypes from 2009 to 2015. While it has now reached the point of great application potential, the MP team continuously works to improve the tool. Right now, the fourth version of MP is available for public use through the NPS Firebird server or offline using Gryphon. NPS Faculty Lecturer U.S. Army Lt. Col. Michael Senft made it so MP graphs can be imported to [Neo4j](#)’s scripting language Cypher. He’s now developing a GoJS interface for MP.

## Endless Applications

At NPS, two recent graduates, Peter Pommer and Nickolas Carter, applied MP to explore every possible behavior a drone could exhibit when tasked to locate a target and report back. MP discovered a flaw in their instructions to the drone, saving time and energy down-the-line had the problem not been found. Carter noted he was quite apprehensive about MP before using it, but now he’s a true believer in its abilities, especially when it gets updated from a 32-bit system to 64-bit (a good thesis topic for an interested NPS student, he says).

Dr. Ed Griffor from the National Institute of Science and Technology (NIST) has been working with James Butler at [Helpful Engineering](#), a social impact engineering community, to design architecture for the Agile Production Platform (APP). APP looks at each supply chain link to find alternative avenues to make a product faster than the normal supply chain could provide. They hope this work could get essential items, like personal protective gear, to those who need it faster in cases where primary supply chains are experience delays, like during a pandemic.

Meanwhile, NPS Professor Charles Pickar is using MP to aid in an acquisition research project, to develop a simulation to prepare acquisition officers for real-life acquisition programs using MP for a virtual simulation. He hopes to create a learning environment to provide our students better understanding of the dynamics of weapon system development.

Dr. John James and Dr. Misha Novitzky, faculty members and research scientists at the US Military Academy at West Point, NY, have brought MP to their campus for research and development efforts with cadets and faculty. Proposed development efforts include mission planning for human-robot teams of UxVs supporting small-unit combat operations including aided threat recognition (ATR) and threat confirming and queuing.

## The Future of Monterey Phoenix

Current MP users are excited to see where the technology goes. One of the 60 students who interned last year, Texas A&M Information Technology student Johnnie Roberts, said the program’s staff “provided excellent guidance and mentorship” during his time. He enjoyed it so much that Roberts volunteered for the MP Ambassadors Program through which he’ll continue to learn more about MP and possibly teach it to incoming students.

Giammarco is already working to generalize the program for any sponsor interested. She’s currently testing the concept through a six-week learning sprint.

The MP team has also been invited by Dr. Ramon Flores from Naval Surface Warfighting Center Port Hueneme Division to present MP basics to pre-engineering high school students. Additionally, they plan to make a textbook for anyone to educate themselves on MP.

Giammarco believes MP can be applied to all NPS departments and in other schools because studying behavior comes in so many forms, from software-based problem-solving to predicting human behavior to making organizational structures more efficient. She hopes it will become a core competency standard of



the university where it can highlight the important partnership between computer science, defense management, and systems engineering, if not others.

“I’d really like to see MP made easy and able to be used across the DOD and its partners,” she says. “It is something NPS should be really proud of.”

[Intuitive, NPS-Developed Behavior Analysis Tool Now Accessible to the Public > United States Navy > News-Stories](#)

[Intuitive, NPS-Developed Behavior Analysis Tool Now Accessible to the Public - Naval Postgraduate School](#)

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## FACULTY:

### **CBS News Special: America Changed Forever [Audio Interview]**

*(CBS News 19 Feb 21) ... Gil Gross*

On this week's "America Changed Forever," supply chain expert, Air Force Major Daniel Finkenstadt from Naval Postgraduate School, diagnoses the significant problems in the distribution of the COVID19 vaccines. In an interview with Gil Gross, he explains why it won't be getting better any time soon. Economist Arin Dube has radically changed economists' views about increasing the minimum wage, ending decades of ignorance about the positive effect minimum wage increases will have on businesses. And, Electricity Grid Expert Ed Hirs, who predicted the catastrophe in Texas years ago, explains how and why it happened and what needs to change before it happens again.

<https://art19.com/shows/america-changed-forever/episodes/12ecafdc-6c68-4d78-8b97-958b8151edf4>

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### **Navy Cyber Defense Operations Command Retires a Cyber Forensics and Training Officer**

*(DVIDS 16 Feb 21) ... Rebecca Sidors*

Lt. Cmdr. Todd Sehl, Navy Cyber Defense Operations Command (NCDOC), deputy training department head, retired from the Navy during a ceremony in the Hall of Heroes Auditorium, Feb.12.

An estimated 25 guests of immediate family members, the NCDOC Wardroom, and current shipmates attended the ceremony in the spacious auditorium that allowed for the required physical distancing. The ceremony was also live-streamed for family, friends and shipmates unable to attend. All guests – whether in-person or virtual – attended to honor and bid fair winds and following seas to Sehl, whose Navy career began in 1997 as an enlisted Sailor attending the Broadened Opportunity for Officer Selection and Training (BOOST) program.

The ceremony’s presiding officer was Capt. Harold Cole, commanding officer, NCDOC. Cole praised Sehl for his many years of service to the country and the Navy.

“Throughout your 20 years of service, you have clearly lived a Sailor’s life of action and adventure on and over the high seas, and across foreign shores, and more recently a different kind of adventure on the new frontier of cyberspace.”

Cole continued, “You did what so few Americans do or even think about today. You chose a rewarding career that made your life most worthwhile and with a great deal of pride and satisfaction. You served your country and the Navy with honor and distinction.”

Sehl’s sea tours included deployment on the USS Wasp (LHD-1) as a first division deck officer, operations division officer, and combat information center officer; then aboard the USS Thomas S. Gates (CG-69) as a propulsion assistant officer preparing all space and associated equipment for decommissioning; and finally aboard the USS Freedom (LCS-1) as an electronic materials officer in the combat systems department.



## **In 2013, Sehl graduated with a Master's degree in Computer Science from Naval Post Graduate School in Monterey, Ca..**

Sehl's shore assignments included U.S. Fleet Forces Command in Norfolk, Va. as the assistant to the U.S. Navy liaison to U.S. Strategic Command, and special assistant to the command information officer at U.S. Fleet Cyber Command, Commander 10th Fleet, Ft. Meade, Md., where he oversaw efforts to secure Navy networks.

Sehl reported to NCDOC, his final assignment, in 2018. He served as the cyber forensics division officer until he rotated to the training department in 2019 where he was the deputy department head.

Sehl thanked the leaders whom he served with throughout his Navy career.

"I've had the opportunity to serve with a lot of leaders. Some I agreed with, others, not so much," said Sehl. "But they each taught me something in their own way, whether they knew it or not. For that, I want to say 'Thank you'. Thank you for your patience, time, and understanding. I learned how to lead from all of you."

Sehl acknowledged that being a Sailor is not always easy.

"No one I ever met in the Navy did it on their own, nor was it ever easy. I am no exception. I am reminded of an old proverb, 'A smooth sea never made a skilled Sailor.' I learned that it takes the challenges we encounter throughout life that make us better," Sehl said. "I have been and always will be honored to be part of a team that defends the nation. As this chapter of my Navy life ends and say my final farewell, I want to remind all my shipmates to embrace the rough seas. They will make you a better Sailor."

Cole presented Sehl with the Navy and Marine Corps Commendation Medal, and certificates of appreciation to Sehl's wife and children for their constant support throughout his Navy career.

The ceremony concluded with a ceremonial retirement flag folding and the recitation of the "The Watch" by several of the Wardroom members. Sehl was then relieved of his watch by Lt. Selby Arnold and piped ashore for the last time.

In his 20-year Navy career, Sehl earned several awards to include the National Defense Service Medal, Navy and Marine Corps Commendation Medals, Navy and Marine Corps Achievement Medal and various campaign and unit awards.

NCDOC's mission is to execute defensive cyberspace operations and enable global power projection through proactive network defense and reports operationally to U.S. Fleet Cyber Command/U.S. 10th Fleet.

<https://www.dvidshub.net/news/389102/navy-cyber-defense-operations-command-retires-cyber-forensics-and-training-officer>

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## **Medically Necessary: IT systems slow vaccine rollout, new vaccines add complications**

*(Freight Waves 16 Feb 21) ... Matt Blois*

Good Afternoon. Medically Necessary is a newsletter about the health care supply chain, how we get drugs, devices and medical supplies to health care providers and patients.

Convolutd IT systems slowing vaccine rollout

**The problem:** The process for sharing data about COVID-19 vaccine distribution is a convoluted Rube Goldberg machine and it's slowing down the vaccine campaign.

**The background:** The Centers for Disease Control and Prevention lists six different software systems used to track vaccine administration and distribution.

States also have their own immunization information systems, existing programs that track all types of vaccination records for individuals.





A national system for ordering publicly funded vaccines, called VTrckS, was launched in 2010. States are now using it to order COVID-19 vaccines.

Earlier this year, the federal government tapped Deloitte to build software for managing vaccine administration across the U.S. Many vaccine administration sites are choosing alternatives because the system was plagued with problems.

**Where are we now?** In some cases public health officials must manually download data from one system and upload it into the next, according to a detailed story about the data management process in MIT Technology Review.

The Tennessee Department of Health is using its immunization registry — called TennIIS— instead of Deloitte’s Vaccine Administration Management System because the platform was still under development as the state was planning its vaccine distribution strategy.

“Information recorded to TennIIS is transmitted to the CDC. TennIIS does not, however, communicate with Tiberius, which is the tool provided by CDC to plan vaccine allocations,” health department spokesperson Bill Christian wrote in an email. “This means allocations are planned in Tiberius, then downloaded and manually entered into TennIIS, then downloaded and uploaded to the VTrckS system to place the orders.”

**A solution:** Rob Handfield, the executive director of the Supply Chain Resource Cooperative at North Carolina State University, said it would make more sense to have a single, national system that allows states, vaccine sites and the federal government to communicate with each other about their inventories and needs. Without that kind of communication, the vaccine distribution project is blind, he says.

“Running a supply chain without data is like driving your car down the street without a speedometer or a GPS,” he told FreightWaves. “That’s what it feels like they’re doing. They really aren’t tracking what’s going on.”

In a recent blog post, Handfield presented India as a counter example. The country is planning to use a single application to manage its vaccine campaign, but the app isn’t available to the general public so it’s still unclear if it will work.

**We’ve been here before:** The Childhood Immunization Initiative Act of 1993 was supposed to create a national immunization registry, but instead funding went to registries for individual states. According to the American Immunization Registry Association, needs varied widely from state to state and it was difficult to create a system that satisfied everyone.

Bill Brand, the director of public health informatics strategy at the Public Health Informatics Institute, said a nationwide IT system for managing COVID-19 vaccine distribution would be more efficient. But creating that system would have faced the same regulatory and cultural challenges as the national immunization registry.

“Certainly the technology exists to do this. If we were a different kind of country we would have single nationwide IT systems for all this kind of stuff. But in fact we were intentionally set up to be very federated,” he told FreightWaves. “Generally speaking in America we’re willing to accept some of that inefficiency and frustration for the sake of maintaining local control.”

**What comes next?** Now, two months into the vaccine rollout, Brand says the U.S. government should focus on improving the current system, rather than building something new.

“Switching horses mid-race is pretty disruptive to everybody,” he said.

States are getting better at using the current Rube-Goberberg-like system. The rate of vaccinations in the U.S. has increased steadily since mid-December and the federal government is taking steps — such as doling out vaccines in pharmacies and invoking the Defense Production Act — to speed it up further.

The American Immunization Registry Association doesn’t see a nationalized IT system for immunizations on the horizon, but Brand said public health officials are learning from this pandemic and will come out strong. Let’s hope they’re up to the task before the next one.

More vaccine approvals mean more doses but also more complexity



**Good news:** In early February, Johnson & Johnson asked the U.S. Food and Drug Administration to approve its COVID-19 vaccine for emergency use.

The Biden administration expects the FDA will receive similar applications from AstraZeneca and Novavax in March.

If approved, those new vaccines would be a major bump to the total vaccine supply. In an interview on CNBC, Johnson & Johnson CEO Alex Gorsky said the company is on track to deliver 100 million doses to the U.S. by the end of June. Novavax has also agreed to supply the U.S. with 100 million doses.

**The challenge:** In some ways, adding new vaccines with different storage and transportation specifications makes the supply chain more complex.

“It does increase the complexity, which is an inherent risk,” Mark Sawicki, the chief scientific officer of the cold chain logistics company Cryoport Inc., told FreightWaves. “But it does also allow the preexisting capacity to be utilized for these other temperature ranges and takes off some of the pressure for (ultra-cold) storage, distribution and packaging.”

Peter Guinto, who served on the U.S. Air Force COVID-19 task force, said adding new vaccines could increase the risk that vaccine sites receive shipments of a second dose from the wrong manufacturer.

“Three weeks in a row: Pfizer. And then in week four a shipment of Moderna when the people in the first week are coming for their Pfizer shot. Now they’re going to have to scramble and find another place to schedule,” Guinto told FreightWaves. “Just imagine if that dose, instead of Pfizer, the next week after that was Johnson & Johnson.”

**The human element:** The upcoming vaccines appear to be effective at protecting recipients from death and hospitalization, but they aren’t as effective at preventing COVID-19 entirely.

The mRNA vaccines made by Pfizer and Moderna were both about 95% effective at preventing COVID-19, compared to 66% for the Johnson & Johnson vaccine. Numbers for AstraZeneca and Novavax are promising but less straightforward.

**Daniel Finkenstadt, a researcher at the Naval Postgraduate School** who has worked on COVID-19 supply chain issues for the last year, said that could introduce a new problem. (Finkenstadt’s views are his personal opinion and don’t represent the views of the U.S. military, the Naval Postgraduate School or the federal government.)

“You have to ask yourself what happens when people ... are saying this one is 95% effective and this one is 67% effective, why am I getting the 67%?” he told FreightWaves. “That becomes a problem. Who gets to choose who gets the better vaccine?”

The question is especially important because the Johnson & Johnson, Novavax and AstraZeneca vaccines can be transported and stored at higher temperatures, which could affect who receives them. If patients turn up their noses at the new vaccines, it could change the pattern of vaccine distribution.

Some states, such as Tennessee and Arkansas, are already sending the Moderna vaccine to rural areas and small towns because, compared to Pfizer’s shot, it’s easier to meet the refrigeration requirements and comes in smaller boxes.

**Bottom line:** More vaccines will speed up distribution. But it’s the human element that will be the trickiest to manage.

“It becomes a marketing and communications issue in addition to a supply chain issue,” Finkenstadt said.

Shipping vaccines to pharmacies should accelerate vaccinations

**More good news.** Retail pharmacies like CVS and Walgreens, as well as independent pharmacies, started giving out COVID-19 vaccines across the U.S. last week. The Federal Retail Pharmacy Program is a big opportunity for the U.S. government to reach more people.



**The first step** was shipping 1 million vaccine doses to 6,500 pharmacies. The program could eventually include up to 40,000 pharmacies once the vaccine supply is steadier.

**The potential:** Eugene Schneller, a health care supply chain researcher at Arizona State University, said he believes that distributing vaccines from pharmacies will speed things up because so many people live close to pharmacies.

“We need to get vaccine to where they are, not to where we think they should go,” Schneller told FreightWaves.

**The first misstep:** Bloomberg reported that Walgreens’ vaccine scheduler crashed as people rushed to make appointments. The website eventually recovered.

**Scaling up:** In preparation for the massive increase in vaccinations, The New York Times reported that pharmacies have been feverishly hiring pharmacists and pharmacy technicians to administer vaccines.

CVS has already hired more than 15,000 pharmacists, its original goal. Walgreens has hired about 7,500 and is aiming for 9,000, according to *The New York Times*.

According to a recent report from STAT, the massive project is taking a toll on pharmacists. They’re struggling to prop up scheduling software and phone lines that are pushed to the limit and putting in long hours to help patients anxious to get a vaccine.

Wishful thinking: One wish to improve COVID-19 vaccine rollout

*“Quickly follow the polio model. ... Move from injection (1955) to oral (1961). Solves lots of problems – and allows many to be inoculated quickly.”*

— Eugene Schneller, health care supply chain researcher at Arizona State

**History:** In the 1950s, polio paralyzed more than 15,000 people every year, and the pressure was on to find a vaccine.

Jonas Salk created the first effective polio vaccine in 1955. It was an injection, and at first supplies were limited.

In the early 1960s Albert Sabin developed an oral polio vaccine. The new vaccine, which required just two drops, was much easier to administer.

**The hope:** In one fell swoop, an oral COVID-19 vaccine would eliminate cold-chain concerns and vastly speed up and simplify the process of giving someone a vaccine.

**The real deal?** A California company called Vaxart is trying to produce an oral COVID-19 vaccine.

An investor presentation promises a pill, stable at room temperature, that will end the pandemic with “no appointments, no lines ... no cold chain, no needles or devices, no waste.”

**Not yet:** The technology for this oral COVID-19 vaccine is far from a sure bet. A small preliminary study found that the tablet caused an immune response but didn’t produce neutralizing antibodies, an important signal of efficacy. The company’s stock plunged after reporting the results.

**Lesson learned:** Salk’s polio injection helped curb the epidemic in the U.S. quickly, but it took decades to reduce polio cases worldwide. The oral polio vaccine continues to be an important tool in the fight against the disease.

Even if it takes years to develop, maybe a COVID-19 vaccine tablet will help keep the virus in check across the globe after injections have tamped down the largest outbreaks.

[Medically Necessary: IT systems slow vaccine rollout, new vaccines add complications - FreightWaves](#)

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## **Livermore: Teens tested in 'Traitor in the Realm'**

*(Pleasanton Weekly 17 Feb 21) ... Dolores Fox Ciardelli*

Two teenage foster siblings find themselves trapped in a treacherous magical world in "Traitor in the Realm," a young adult fantasy novel by Patricia J. Boyle that was released last month. The teens must balance their desire to return home with a call to rescue a medieval kingdom from destruction by a royal traitor.

"The story begins in New York's Adirondack Mountains, then shifts to the kingdom of Kylemore, a treacherous realm where magical beings, prehistoric creatures and danger coexist," Boyle said. "Events conspire against the pair as they race against time, attempting to reach the gateway back to earth before it closes forever."

The tale centers around teens with unique talents who react differently to unexpected situations, Boyle explained.

"Kallan MacKinnon and her foster brother, Matthew Webbe, meet twins their own age in the new world. The four of them forge friendships, and each contributes their own skills to conquering the challenges they face," Boyle said.

"Kallan and Matthew come from an unconventional family, and although their guardian is also caught in the foreign realm, it is the 15-year-olds who are tested against the traitor attacking the kingdom."

Boyle worked as a research meteorologist at the **Naval Postgraduate School** in Monterey and moved with her family to Livermore in 1991. She taught math and science in Livermore schools for nearly two decades before retiring.

For the past nine years, Boyle has written articles about the Livermore-Amador Symphony. Since her retirement, she has spent much of her free time writing, often incorporating her love of nature and fantasy into poems, short stories and now a young adult novel.

"Traitor in the Realm" was published by Russian Hill Press, a small local company, and the art work and maps were created by Livermore artist Susan Marchand.

"With the pandemic stressing businesses of all sorts, I wanted to support talented members of the local community," Boyle said. "With the consolidation of large, traditional publishing companies, small presses and independent artists are more important than ever in the publishing industry."

"Traitor in the Realm" is available at Towne Center Books as well as online outlets. For more information, visit [patriciajboyle.com](http://patriciajboyle.com).

[Livermore: Teens tested in 'Traitor in the Realm' | News | PleasantonWeekly.com |](#)

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## **The Potomac Institute Welcomes Brian Hibbeln as a Senior Fellow**

*(Homeland Security Today 20 Feb 21)*

The Potomac Institute has welcomed Brian Hibbeln as a Senior Fellow. Hibbeln is a Venture Partner at SineWave Ventures, a firm dedicated to accelerating new technologies, and he has spent 23 years as an Air Force Reserve Officer with assignments at both the National Air and Space Intelligence Center (NASIC) and the National Reconnaissance Office (NRO). His final assignment was to the Mission Support Directorate of the NRO.

"I was excited to join the Potomac Institute because they have always been widely understood to be the premier think tank in Washington supporting tech and policy issues," said Hibbeln. "The impact they have made has been nothing short of incredible."

"Brian brings a wealth of civilian and military knowledge to the Potomac Institute. His passion for emerging technology has been clear throughout his entire career. We're so excited to work with him and mobilize this passion to advance the mission of the Institute," said Potomac Institute CEO Dr. Jennifer Buss.



Upon release from active duty, Hibbeln was awarded the Joint Meritorious Service Medal, a certificate of achievement from the Director of the CIA, and the NRO Silver Medal. In 2001, he was recalled to active duty to serve in Operation Enduring Freedom. During this tour, he led a number of new initiatives utilizing National, Civil, and Commercial space systems to combat terrorism and provide operational support to forces and the Intelligence Community. During this time, he also supported the White House Military Office as White House Social Aide to the President.

After serving in the Air Force, he spent over 20 years as a senior civilian in the U.S. government. He served as the Assistant Deputy Undersecretary of Defense for Special Capabilities in the Office of the Secretary of Defense (OSD). He also served as the very first director of the Special Capabilities Office (SCO), where he managed over \$2B in resources. He was responsible for the oversight of Joint Capability Technology Demonstrations (JCTD) related to intelligence, space, airborne, and other remote sensing operations. He also oversaw the development of special technologies in support of the Combatant Commands, the Joint Staff, the Intelligence Community, and forward deployed operational users.

Hibbeln recently served as the director of the **Naval Postgraduate School's Remote Sensing Center-National Capital Region**, where he managed over \$8B in U.S. government contracts. The Remote Sensing Center supported the DOD and U.S. Intelligence Community with technology demonstrations and operational support to combatant commanders around the world. He previously served as the Chief Scientist and Chief Systems Engineer of Measurement and Signature Intelligence at the Intelligence (MASINT) Staff at the NRO. He was responsible for the development of new overhead sources and methods to address hard intelligence problems and led the development of advanced space-based MASINT architectures. In this position, he provided recommendations to the Director of Central Intelligence, Congressional Staffs, senior policy and decision makers, and numerous operational and intelligence customers. Many of these programs transitioned to operational programs of record that continue to provide significant support to ongoing operations.

[The Potomac Institute Welcomes Brian Hibbeln as a Senior Fellow – Homeland Security Today \(hstoday.us\)](http://hstoday.us)

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## **More than Just Friends? New Azerbaijan-Turkmenistan Agreement on Joint Energy Production in the Caspian Sea**

*(Central Asia-Caucasus Analyst 16 Feb 21)* ... Brenda Shaffer

On January 21, 2021 the Presidents of Azerbaijan and Turkmenistan signed an intergovernmental Memorandum of Understanding (MOU) for joint development of the newly named Dostluq (friendship in Azerbaijani and Turkmen languages) oil and natural gas field. This agreement will likely facilitate multiple new ventures in oil and gas in the Caspian Sea. It also reflects the mutual desire of the two states for increased cooperation in multiple spheres beyond energy and is the result of increased contacts between the two neighboring countries over the last two years. Increased cooperation between Azerbaijan and Turkmenistan is likely to emerge beyond the sphere of energy.

### **Background**

Turkmenistan and Azerbaijan are bordering states in the Caspian Sea, yet the trade and joint commerce between the two countries is quite limited. They have only minimal direct transportation links. For close to three decades, Washington and the EU promoted unsuccessfully the establishment of a Trans-Caspian gas export pipeline linking Turkmenistan and Azerbaijan to bring part of Turkmenistan's massive natural gas production to Europe. To date, Turkmenistan exports gas eastward to Central Asia and China and northward to Russia, and in the past exported to Iran. However, Turkmenistan has yet to establish export to higher paying markets to the West. Russia has at times blocked Turkmenistan's moves toward exporting gas to Europe. The most famous incident was an April 2009 explosion damaging





Turkmenistan's gas export pipeline to Russia, following Ashgabat's meeting with EU representatives to discuss potential exports, which many observers blamed on Moscow.

One obstacle to Turkmenistan's ambitions to export to the West had been disagreement between Turkmenistan and Azerbaijan over how to delimit the oil and gas field straddling their maritime border in the Caspian Sea. The MOU marks an end to the delimitation dispute with a decision to jointly develop the field. This agreement was also facilitated by the conclusion of the Convention on the Legal Status of the Caspian Sea in 2018.

As an MOU, the agreement is not legally binding. In addition, the concrete details on the joint production still need to be hammered out between the sides. However, since the presidents themselves have openly celebrated the agreement, it is a firm commitment.

With the delimitation disagreement disposed of and with both sides signaling that the decision is part of a larger process to expand cooperation, additional collaboration in the energy sphere is highly likely. One strong option is the establishment of a short pipeline between Turkmenistan's gas production in the Caspian and Azerbaijan's existing major oil production Azeri-Chirag- Guneshli (ACG) field complex. This would enable initiation of Turkmen gas exports to the West through swaps.

The new agreement also increases the prospects of larger export of Turkmen gas westward via the Southern Gas Corridor. That project became fully operational on December 31, 2020 and it seems its completion motivated Ashgabat to take steps toward joining the project. While the Southern Gas Corridor was only under development, Turkmenistan took a quite logical decision to wait and see how the project will overcome multiple hurdles and be realized, and then decide to join.

The MOU comes on the heels of new cooperation between Azerbaijan and Turkmenistan in the field of oil marketing. In December 2020, Azerbaijan's SOCAR Trading won a tender to trade some of Turkmenistan's oil exports.

**IMPLICATIONS:** The agreement between Azerbaijan and Turkmenistan is a product of warming relations and increased contact between the sides that has taken place in the last two years. Cooperation between the sides is likely to expand into multiple new fields, beyond the sphere of energy. The likely next sphere will be expansion of transportation links, in light of the bare bones flight and maritime transportation links between the states. People-to-people ties are likely to increase. Despite being neighboring states, few citizens of the two countries visit each other's countries and there is a dearth of institutional linkages between the two.

One likely implication of the newfound cooperation between Azerbaijan and Turkmenistan is to pull the rug out from under an initiative Georgia has actively promoted for the past four years, aimed at exporting Turkmenistan gas to Europe via Iran, Armenia, and Georgia. While its prospects were never great, it is much more likely that if Ashgabat seeks to export gas westward, it will do via the existing Southern Gas Corridor.

The agreement is likely to trigger renewed Western commercial interest in Turkmenistan's energy sector. Oil and gas companies rarely invest in disputed territories. The end of the delimitation dispute will allow companies to take a fresh look at Turkmenistan. Also, Azerbaijan has a reputation in the oil and gas industry as a country that upholds sanctity of contracts with foreign investors and protects foreign investments in the country. Partnership with Azerbaijan may help Turkmenistan attract Western investment to their joint projects.

In recent years, Azerbaijan's SOCAR has taken interest in investing in and developing energy resources in Central Asia. The agreement with Turkmenistan is likely to give impetus to further exploration and investment activity in Central Asia.

**CONCLUSIONS:** The agreement and wider cooperation that has emerged between Turkmenistan and Azerbaijan took place without the intervention of a foreign power. The United States tried for more than two decades to broker a maritime delimitation agreement, but in the end the two countries concluded it on their own. Up until about a decade ago, the U.S. was the major convener of cooperation in the Caspian region. While U.S. companies are still present and active in the commercial cooperation in the region, the U.S. currently is now hardly a player in political cooperation in the Caspian region.

The decision on joint production is a reminder that legal challenges rarely bring closure to maritime delimitation disputes. It is best when the delimitation is set by bilateral agreement and joint production generally offers the most beneficial outcome.

The newfound cooperation between Azerbaijan and Turkmenistan also shows that while the two states are formally part of two regions and often administered under different bureaus in the US and European foreign policy mechanisms, Central Asia and the South Caucasus are two parts of one region—the Caspian region, which is integrating more and more.

It is important to watch other littoral states reaction to the emerging cooperation between Azerbaijan and Turkmenistan. Currently, the two states are taking baby steps in their cooperation. If they try to establish major gas export westward, the reactions remain to be seen.

### Author's Bio

**Dr. Brenda Shaffer is a Research Faculty member of the US Naval Postgraduate School**, a Senior Fellow at the Atlantic Council's Global Energy Center and a Senior Advisor for Energy at the Foundation for Defense of Democracies (FDD) think tank. She is the author of *Energy Politics* (University of Pennsylvania Press), which is used as a textbook in over 200 university courses.

[More than Just Friends? New Azerbaijan-Turkmenistan Agreement on Joint Energy Production in the Caspian Sea \(cacianalyst.org\)](#)

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### Iran's Latest Wave of Electricity Outages

(FDD.org 16 Feb 21) ... Brenda Shaffer

Iran has experienced extensive electricity outages across the country in recent weeks, with air pollution levels soaring as Iranians employ polluting fuels to generate power. The country's electricity supply problems will likely worsen in the coming months, since natural gas shortages in Iran look likely to continue and Armenia plans to shut down for maintenance a nuclear power plant that exports half its output to Iran via Armenia's power grid.

Despite holding the world's second-largest natural gas reserves, Iran has had chronic natural gas shortages for decades, owing to habitual underinvestment in new production and to heavy subsidies that keep domestic gas and electricity prices low, encouraging waste. Natural gas provides most of the country's electricity, though in recent months Iran has upped its use of heavy oil (or *mazut*) to compensate for gas shortages. Iran has a surplus of heavy oil, owing to U.S. sanctions on Iranian oil exports. In addition, adding to the pollution, many Iranian factories and homes are using generators running on diesel or other fuel oils, due to the electricity outages.

Over the last two years, U.S. sanctions on Iranian condensate exports have limited Iran's natural gas production. The country's natural gas has associated liquids, or condensate, that are produced together with natural gas production. A lack of storage and domestic demand for condensates has forced Iran to curtail natural gas production.

In a bid to limit electricity consumption, Iranian authorities have targeted the cryptocurrency industry, shuttering 1,600 cryptocurrency processing centers. Cryptocurrency production generally develops in places where cheap electricity is available, like Iran. Accordingly, Chinese and other foreign companies have established cryptocurrency "mining" operations in Iran and may be receiving subsidized electricity from the government to power their activities. Cryptocurrency is often a vehicle for money laundering, sanctions evasion, tax evasion, and other illicit activity, all clearly attractive to Iran. In light of the rapid devaluation of Iran's currency under sanctions, citizens in Iran have reportedly been turning to cryptocurrency in an attempt to maintain their savings.

Iran's electricity woes will likely increase this year due to the planned shutdown of Armenia's nuclear power plant, Metsamor. Armenia exports half of Metsamor's output to Iran. Presumably, Armenia will need to halt exports while its electricity production is down in 2021.



Meanwhile, Iran is a major exporter of electricity to Iraq yet may not be able to sustain those exports due to Iran's own domestic shortages. This may cause outages in Iraq, especially in the summer, when Iraqi electricity demand increases.

Sustained electricity outages are often a trigger for social unrest, as seen in Egypt, Iraq, and elsewhere. If Iran's electricity shortages continue, they may spur a new round of anti-regime protests.

Brenda Shaffer is a senior advisor for energy at the Foundation for Defense of Democracies (FDD), where she also contributes to FDD's Iran Program and Center on Economic and Financial Power (CEFP). She is also a faculty member at the U.S. **Naval Postgraduate School**. For more analysis from Brenda, the Iran Program, and CEFP, please subscribe [HERE](#). Follow Brenda on Twitter @ProfBShaffer. Follow FDD on Twitter @FDD and @FDD\_Iran and @FDD\_CEF. FDD is a Washington, DC-based, nonpartisan research institute focusing on national security and foreign policy.

[FDD | Iran's Latest Wave of Electricity Outages](#)

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## COMMENTARY:

### **Unfurl the Banner! Privateers and Commerce Raiding of China's Merchant Fleet in Developing Markets**

*(War on the Rocks 18 Feb 21)* ... Christopher D. Booth and Walker D. Mills

The first rays of sunlight splayed across the calm coastal waters as Steele steered the fast-boat toward the target. Since graduating as a U.S. Navy Special Warfare Combatant-Craft Crewman over a decade ago, he had rehearsed and conducted intercepts like this hundreds of times. He subconsciously compared wave states to those he had encountered off Coronado, Virginia Beach, and foreign war zones and adjusted the throttle and steering of his powerful craft accordingly. A week ago, his unit had been providing counter-piracy training for Somaliland's coast guard, but then tensions in the South China Sea erupted into conflict. Now Steele and his team had become commerce raiders preying on the large vessels operated by Chinese state-owned enterprises and carrying natural resources from Africa to China.

While often paying bribes to African rulers and their coterie, China had not made itself popular with many Africans. This resulted from China's frequently corrupt business practices, with its cheap imports undercutting local producers, and the use of Chinese labor on the multi-billion-dollar Belt and Road Initiative projects (many of which are environmentally harmful). Critics saw many of these as premeditated debt traps that obligate governments to offer concessions for breathing room to finance these "white elephants." A local working in the harbor master's office passed word that the COSCO Shipping vessel transporting Sudanese crude oil, now 20 nautical miles east of the port, did not appear to have a vessel protection detachment or any other means for self defense when it steamed out to sea. Later reconnaissance conducted by an intelligence, surveillance, and reconnaissance platform spotted no evidence of shipborne defense.

A swarm of drones deployed from a warehouse, a tug, and a charter dive boat converged on the tanker. The captain was told to prepare for boarding or risk having his vessel turned into a giant Roman candle lit by thermobaric weapons dropped by the drones. The captain issued an order and the ship began to slow. Jan, the leader of the assault team, spoke to Steele in his Afrikaans-accented English, saying, "I bet when you were a Navy squid, you never imagined a payday like today." Jan was right. Steele and the other men in the boat worked as private maritime security contractors, but their company now operated with a letter of marque issued by the United States government providing them with legal status as privateers — and they stood to profit handsomely from the seizure of this prize.

### **Privateers in Great-Power Competition**

China has a vast and vulnerable overseas presence in the developing world, as it has sought to obtain raw materials that it cannot produce at home. As an example, it is now the world's largest importer of oil



and gas. Increasingly, China relies on raw materials shipped home from projects run by its state-owned enterprises, many of which operate in Africa and Latin America. The presence of large numbers of well-trained and well-staffed private military contractor companies and private maritime security companies in Africa and Latin America provides a ready resource to leverage against China's long sea lines of communication. China has been undergoing a dramatic naval expansion, exacerbating a growing imbalance between the size of the U.S. and Chinese fleets. The U.S. Navy's global commitments have already led some to conclude that the force is stretched too thin. Privateers offer a force multiplier for the United States and its allies.

While they were a key instrument of naval warfare for hundreds of years, the use of privateers declined over time as private companies lost the ability to outfit their own vessels to make them comparable in speed and lethality to modern warships. However, in the past two decades, cheap and lethal military technology has become commonplace. With off-the-shelf military-grade equipment available in the open market, proficient and disciplined forces can inflict significant damage against even the best-equipped military units. This development may allow privateers to return to a position where they overmatch merchant ships and most protective elements.

The United States should consider hiring privateers to raid Chinese merchant ships and destroy port facilities owned by Chinese state-owned enterprises in any future great-power conflict. The power to employ privateers would be delegated to combatant commands to utilize in their regional area of responsibility. By themselves, privateers are not a war-winning weapon, but they can inflict economic harm, degrade China's war machine that relies upon foreign supply lines, and impact the Chinese military's decision-making calculus. Efforts by China to protect merchant shipping or state-owned enterprise facilities would take resources away from operations in the Pacific, the central theater of any future Sino-American conflict. The failure to protect these lines of communication would cause China's war-making capacity to sputter over time, as Imperial Japan learned to its detriment in World War II. Hiring privateers to raid China's commercial interests may appear far-fetched to some, but doing so in wartime would nevertheless be legal, ethical, and in the American national interest.

### **Use of Privateers**

The United States has a history of employing privateers to augment its naval forces. Their greatest impact came in the War of 1812 against the British Empire, then the world's greatest naval power. In that war, the U.S. Navy captured around 250 enemy vessels, but American privateers likely captured five times that number. U.S. privateers had a similar effect during the Revolutionary War, straining the Royal Navy's resources by driving it to carry out convoy operations for merchants, impinging upon their sea lines of communication, and substantially increasing insurance rates on British merchant shipping, among other impacts. While not issuing letters of marque (i.e. documents granted by the government to private entities to act as a privateer on the government's behalf) during the Spanish-American War in 1898, the United States recognized it maintained the right to do so. Scholars have argued recently that commissioning privateers remains legal under international law.

Privateers were typically a weapon of choice for weaker maritime powers, though Britain employed them extensively in the 18th century despite dominating the seas. Unfortunately, the U.S. Navy may already be too small to challenge the People's Liberation Army Navy directly while operating in the Western Pacific and at the same time engage in commercial raiding of the Chinese merchant fleet. Using privateers to engage Chinese vessels around the globe would free the U.S. Navy from the task, allowing it greater freedom to operate in the Western Pacific. Privateering is an economy of force option for a Navy that is finding itself outbuilt by Chinese shipyards and, eventually, outnumbered by the People's Liberation Army Navy. It would also be a fair response to the People's Armed Forces Maritime Militia, a paramilitary of civilian mariners that Beijing has repeatedly used in regional disputes. In both world wars, the major powers sought to exploit commerce raiding in peripheral theaters to impact their adversaries' strategic options. For example, the threat posed in 1914 by a single German cruiser — the *Königsberg* — to British supply lines off of East Africa and the Indian Ocean obsessed the First Lord of the Admiralty, Winston Churchill, and led the British Admiralty





to redeploy 27 ships from across the globe for more than a year to counter it. Today, those regions are even more important in terms of the resources they produce and the investment that they host.

### **China Is Increasingly Reliant on Developing Markets**

China is increasingly reliant on the importation of natural resources from overseas to run its economy, with notable efforts in Africa and Latin America. It relies upon unarmed merchant shipping to transport these critical raw materials across great distances back to China. Securing these seaborne lines of communication across thousands of miles of oceans and from ports spread across the width and length of two large continents presents a vulnerability that the United States should exploit in a conflict.

China now obtains more than one-third of its oil and 20 percent of its cotton from Africa, and it has developed ports and funded mines to gain access to critical minerals such as manganese, coltan, and rare-earth metals. To guarantee future oil supplies, China has heavily invested in African oil producers including Sudan, Angola, and Nigeria. Chinese state-owned enterprises are the leading investors in the development of the African petroleum industries, and those same Chinese companies ship the fuel produced by these African projects to China. As part of China's foreign policy, and to address excess economic capacity, the Chinese Belt and Road Initiative has undertaken development projects in more than 60 countries. As of December 2019, it had invested \$140 billion in Africa alone, with China holding more than 20 percent of all African governmental debt. Forty countries in sub-Saharan Africa have signed onto Belt and Road projects.

Chinese investment in Latin America and the Caribbean has increased dramatically in the last decade. Trade between China and the region has increased more than 20 fold in the past ten years, and almost all of it is seaborne. Chinese banks have surpassed the investments made by the Inter-American Development Bank and the World Bank, pouring over \$100 billion into the region. China has focused its financing on commodities and infrastructure, including Venezuelan crude production, petroleum refining in Ecuador and Costa Rica, and soybeans in Brazil and Argentina. China's overseas fishing fleet, consisting of ships smaller than large cargo transports, could be an additional target for privateers. Fleets made up of hundreds of Chinese-owned fishing vessels consistently operate in Latin American or adjacent waters to satisfy the skyrocketing demand for seafood by Chinese consumers, who now consume more than a third of all seafood globally. These fleets have repeatedly clashed with regional governments, and while the total number of vessels is unclear, it is estimated to be as high as 17,000 vessels. Taking on fishing fleets with privateers might not force starvation but would cut off the supply of an important daily commodity.

### **Legal Basis For Privateers**

Many may assume that privateers died off with the Age of Sail, and the practice was barred by a series of international treaties. However, renewed attention to the subject over the past two decades has established that first, the United States never agreed to any prohibitions on privateering and specifically rejected the efforts to outlaw the practice at the Second Hague Convention in 1907, and second, that it remains a lawful practice under international law. Furthermore, the U.S. Constitution specifically provides for the issuance of letters of marque. Most recent scholarship has focused on utilizing privateers to counter piracy (and it has also been raised as an idea in counter-terrorism). The legal bases for utilizing privateers in support of counter-piracy missions are no different than those that would authorize the use of privateers in a great-power competition. Some have begun to advocate, as do we, their use as a means of warfare for countering China if the United States and its allies find themselves in a third world war.

There has been robust discussion as to whether private maritime security companies acting against pirates meet the definition of privateers, as they operate in a defensive fashion to protect ships in transit. We argue that privateers could operate more broadly, not to safeguard commercial transportation but to actively engage in commerce raiding as an asymmetric means to impact China's ability to engage in a lengthy conflict against the United States and its allies.

Historically, privateering represented a "peculiarly American way of war," given its decentralized, entrepreneurial nature, that relied upon consortia to disperse risk and consolidate investment in a capitalist





enterprise — private companies raiding ships for profit. Recently, scholars have tried to reassert the importance of “maritime raiding and irregular warfare” to the early U.S. Navy. Using privateers today would be in line with that lineage. Privateering is lawful, and the privateers are legally distinct from mercenaries and entitled to protection under the Geneva Convention. Captured merchant vessels were evaluated by prize courts that awarded shares of prize money to the successful raiders. Letters of marque do not begin at the water’s edge, but also allow for land-based seizures. The United States pays bounties to private citizens, allowing bounty hunters to pursue federal fugitives, and offers payment for information on terrorists and drug kingpins through the Rewards for Justice and Narcotic Rewards programs.

Were the United States or other allied powers to decide to utilize privateers against China’s economic periphery, the question would be whom to employ. The least problematic from a legal basis would be private military contractors and private maritime security contractors, given the requirements under the Geneva Convention that they operate in accordance with the laws of war and have a command structure.

During the height of the war in Iraq, Gen. Stanley McChrystal developed Joint Special Operations Command into one of the most nimble and lethal organizations in history that succeeded in shattering al-Qaeda in Iraq. To achieve this, McChrystal focused on pushing decision-making and authority down to the lowest tactical level. Similarly, we suggest giving combatant commands the authority to hire privateers in their areas of operation. They would likely further delegate decision-making to their naval elements, for example U.S. Naval Forces Central Command in the Middle East and the Horn of Africa, or U.S. Naval Forces Southern Command in Latin American waters.

The U.S. military’s contracting system is often cumbersome and slow, though it does allow for waivers — exceptions were often granted in Iraq and Afghanistan — and “other transaction authority agreements” have become increasingly popular as a means to cut through bureaucratic red tape. Combatant commands could utilize streamlined contracting procedures supervised by their lawyers to hire appropriate companies. As a global conflict with China would require quick reactions and not allow the traditional lag times for build-up that the United States has grown accustomed to, commands could identify first movers ahead of time with standby letters of marque for trusted U.S. companies. The past two decades have already seen the United States rely heavily on the privatization of warfare. During the height of fighting in Iraq, 50 percent of U.S. force structure was provided by contractors and, similarly, 70 percent in Afghanistan. Some predict that the United States may outsource 80 percent or more to outside contractors in future wars. U.S. Central Command employed 50,000 contractors in 2018, and 30,000 of them were foreign nationals.

Provided that foreign private military contracting companies are appropriately trained, equipped, and led, it seems reasonable that they could be used as privateers by the United States. U.S. Southern Command relies on chartered support at sea for counter-narcotics and recently extended the contract.

Many private security companies meet international standards for transparency and accountability in accordance with international business standards. The International Organization for Standardization has issued guidance for private maritime security companies performing shipboard defense. While not directly analogous to privateers (which are fundamentally offensive), companies that have undertaken to comply with international standards in this industry could be a good first start of those to be enlisted in commerce raiding. Private security contractors that are contracted through the Defense Department are also subject to the Uniform Code of Military Justice, and privateers could be similarly held accountable with courts martial and other non-judicial punishments.

Historically, privateers received “prize money” for the vessels and goods that they captured after having been evaluated by a prize court. British Admiralty courts were the prime developers of admiralty law and the rules of these tribunals. Privateers would sail seized vessels into the ports of belligerents or their allies for evaluation of their prizes. These courts provided a measure of due process to ensure that privateers employed only reasonable violence and that they received payment for only legitimate targets. The 1995 San Remo Manual on International Law Applicable to Armed Conflicts at Sea recognizes that combatants may capture enemy merchant vessels as a prize and that prize courts can examine the legality of the seizure. Civilians may man a “warship” under international law, and thus their conduct would also be covered by the San Remo Manual. Using privateers, the U.S. could lawfully utilize a prize court (or



appropriately competent panel) and pay them for seized Chinese goods and vessels. Those goods could be auctioned off, or — if they are critical war materials, such as oil — be used by the U.S. government.

### **Available Actors**

In Africa, the extensive number of private contracting companies operating in security roles and conflicts provide a ready-made infrastructure for hiring privateers, and many already operate in the maritime space protecting shipping from pirates. Similarly, in many Latin American countries, private contractors outnumber police. The United States government heavily employs contracting companies in African counter-terrorism and stability missions and in Latin American counter-narcotics operations. French, British, Russian, and Ukrainian companies (among others) work for African states or at the behest of Western governments in the Sahel and elsewhere on the continent.

Employing well-regulated private military contractors to serve as privateers would be an ethical solution for the United States or its allies. Nevertheless, history provides examples of the United States cooperating with even less savory groups including with the Mafia in Sicily during World War II and — with less success — in operations conducted against Castro’s Cuba. In a high-intensity global conflict, state actors may not be as scrupulous in whom they hire as privateers. The same Somali clans that operate effective consortia for piracy, which have been the focus of much of the privateer debate, would be well-positioned to conduct commerce raiding against Chinese shipping around the Horn of Africa, the Red Sea, and likely as far as the entrance of the Persian Gulf — impacting Chinese oil imports. Similarly, non-state actors, such as the Houthis in Yemen, have a demonstrated capacity to utilize their naval forces to impact merchant shipping, and may represent a potential ally for raiding Chinese shipping (and are not a stranger bedfellow than was the U.S. alliance with Stalin and the Soviet Union). Nigerian separatist groups, concentrated in the oil-rich Niger Delta, have long conducted attacks against foreign oil companies and state hydrocarbon infrastructure. They would have the means and potential motive to enlist in privateer activities in Africa. Even states desiring to improve relations with the West could allow their citizens to participate as privateers — or importantly as a neutral country allow privateers to refuel and rearm: Eritrea is one such country whose mercurial leader may see the benefits of such an understanding.

### **Asymmetric Advantage**

The proliferation of affordable weapons technology has revolutionized the battlefield over the past two decades and “democratized” access to cutting-edge systems. The Islamic State utilized drones for reconnaissance as well as to deliver improvised weapons against forces in Iraq and Syria. Armenia had no counter to the devastating drones utilized by their Azeri adversaries in the fighting that took place in late 2020 in Nagorno-Karabakh, leading Armenia to accept a humiliating ceasefire in their long-running dispute over the territory. Houthis have pioneered the use of drone suicide-boats against belligerents and commercial shipping in Yemen’s waters. Mexican security forces have repeatedly found themselves out-gunned by better armed cartels. Criminal groups in the Caribbean and Western Pacific are no stranger to maritime operations and use large fleets of boats and semi-submersibles to move drugs, particularly cocaine, north toward the United States with what has been called a “narco-navy.” In a crisis, the United States should fund and organize privateers to utilize their existing capabilities to attack Chinese merchant vessels.

The success of Chinese state-owned enterprises provides a significant vulnerability. Their size and scope in developing nations ensures that they present lucrative targets that are nearly impossible to protect everywhere. As an example, China Merchants Port Holdings, and China COSCO Shipping Corporation Ltd are mega-companies cover the waterfront for maritime industries involved in dry-bulk, container, and liquid tanker shipping; shipyards; and port management. COSCO Shipping Ports is the world’s second-largest terminal operator in the world and China Merchants Port Holdings, which operates Djibouti’s container port is an even larger state-owned enterprise than COSCO, moving a greater volume of cargo and operating terminals worldwide.

Various countries’ militaries have deployed vessel protection detachments to protect merchant ships flagged by that country. It is possible that China could seek to counter privateers through extensive use of



this technique or by launching its own privateers. Beijing could also conduct protected convoy operations as the allies did in the Battle of the Atlantic to counter the U-boat threat. But in either circumstance to protect the vast number of Chinese merchant vessels (or shore-based infrastructure, which as was noted is also a legitimate target for privateers under international law), the People's Liberation Army and/or People's Liberation Army Navy would have to commit resources to protecting these assets and sea lines of communication, reducing the resources that they could use against U.S. or allied naval forces. At the outset of the war, it is unlikely that the Chinese would have implemented use of vessel protection detachments to protect their state-owned enterprise vessels and facilities in Africa and Latin America. While it is possible that they might choose to do so, the most likely way to quickly reinforce and harden their fleet would be to utilize transport aircraft to deliver security forces to these regions. Not only are there potential issues on refueling aircraft flying from China to these developing areas, but cargo aircraft are typically slow and vulnerable, and would reduce Chinese lift capabilities to reinforce units engaged in combat, deliver logistical resupply, or support operations in the Pacific.

Because Chinese fleets — merchant, fishing, naval, and coast guard — all outnumber their U.S. equivalents and China has a larger domestic shipbuilding capacity, the United States is unlikely to win a conventional naval arms race. Leveraging privateers is a way to unleash the forces of market capitalism at scale. Focusing on Africa and Latin America leverages the United States' superior geography and access to the Pacific, Atlantic, and Caribbean. U.S. military and U.S.-based private security contractors already operated in those areas and would have a critical advantage in time and space of Chinese or People's Liberation Army Navy protection operations in those regions.

Captured merchant vessels would also be able to supplement the anemic U.S. flagged fleet. Both the US flagged merchant fleet and the government-owned vessels of Maritime Sealift Command are in such dire straits that one analyst forecast a future conflict where the United States is "unable" carry its armies to war. During World War II, 60 percent of the world's merchant shipping by tonnage was U.S. flagged, in 2015 only two percent of the ships visiting American ports were U.S. flagged. Between 1960 and 2010 the U.S. flagged fleet fell from over 1,000 vessels to 221 — privateering would be one way to help boost those numbers if the captured ships were pressed into U.S. service and to make up for limited domestic shipbuilding capacity and the replacement of cargo vessels lost in a conflict.

## Conclusion

Both China's navy and coast guard are larger than their American counterparts and increasingly well equipped. In the event of a conflict, the U.S. Navy will have to think outside the box: Hiring privateers to raid Chinese maritime interests is one such strategy. Its substantial overseas presence in the developing world and reliance on natural resources being transported across vast oceans to mainland China have created a unique vulnerability that could be exploited. Threats to Chinese assets are in many areas already in place given the proliferation of trained and disciplined private contractor forces who are operating in the same regions and areas as the vulnerable Chinese state-owned enterprises. China would likely be no more successful than many other governments who have sought to counter the propagation of advanced military technologies. Finally, while the use of privateers has largely died there are no legal prohibitions against their use, and privateers themselves have legal protections as combatants. Capitalism has been one of the greatest levers for innovation and development the world has ever seen, and incentivizing decentralized but professional organizations to develop techniques and conduct attacks against Chinese merchant shipping for profit provides a unique and asymmetric advantage that could be employed in any future great-power conflict.

Christopher D. Booth is a career national security professional and served on active duty as a commissioned U.S. Army armor and cavalry officer. He has extensive experience abroad, including assignments in the Middle East, Asia, and Europe. He is a distinguished graduate of Command and Staff College-Marine Corps University. He graduated from Vanderbilt University Law School and received a B.A. from the College of William and Mary.

Capt. Walker D. Mills is a Marine infantry officer. He is currently serving as an exchange officer at the Colombian Naval Academy. He is a non-resident Master of Arts student at the **Naval Postgraduate**



**School's Center for Homeland Security and Defense.** He holds an M.A. in International Relations and Modern War from King's College London and received a B.A. from Brown University.

[Unfurl the Banner! Privateers and Commerce Raiding of China's Merchant Fleet in Developing Markets - War on the Rocks](#)

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## ALUMNI:

### **WashingtonExec to Posthumously Honor Dr. J. Phillip "Jack" London with Lifetime Achievement Award**

*(Yahoo Finance 17 Feb 21)*

The Lifetime Achievement Award recognizes Dr. London's career achievements, how he led and grew CACI, and his contributions to the national security market.

WashingtonExec announced today it would posthumously honor Dr. J. Phillip "Jack" London with a Lifetime Achievement Award on May 20 at WashingtonExec's virtual Chief Officer Awards, celebrating his 49-year legacy in senior leadership with CACI, and the mark his accomplishments left on the government contracting industry.

Dr. London was the executive chairman and chairman of the board of CACI from 2007 until his death in January 2021. Prior to that, he served as president and CEO from 1984-2007, and is known as the "founder of the modern-day CACI," according to the company.

In its second year, WashingtonExec's Chief Officer Awards will celebrate the most impactful and innovative C-suite executives in government and industry. The Lifetime Achievement Award recognizes and honors Dr. London's achievements during his career, how he led and grew CACI and his contributions to the national security market.

Dr. London first joined CACI as a program manager in 1972, eventually advancing to vice president and division president before his appointment to CEO. He was first elected to CACI's board of directors in 1981 and served as its chairman from 1990 until his death.

Dr. London grew CACI to a global national security leader and shaped it into a trusted federal partner as it provided expertise and technology to enterprise and mission customers. His strategic vision in the 1990s helped set company records for revenue and profit and positioned CACI for the emerging market in network technology. By the 2000s, Dr. London had expanded CACI into the intelligence and homeland security market. In 2008, he also co-founded the Asymmetric Threat Symposium Series to advance the dialogue on national and global security.

Dr. London is also remembered and honored for his illustrious U.S. Navy career, having served 12 years of active duty during the Cold War — which included 33 at-sea deployments — followed by 12 years in the Navy Reserve and retiring as a naval captain in 1983. He was a graduate of the U.S. Naval Academy and **Naval Postgraduate School**, was inducted into the **Naval Postgraduate School Hall of Fame** in 2011, and honored with the U.S. Naval Academy Distinguished Graduate Award in 2019.

"Dr. London's death is an enormous loss to the community," said JD Kathuria, founder and CEO of WashingtonExec. "His contributions not only shaped CACI into today's behemoth national security company, but his legacy will live on for years to come, within the government contracting industry and beyond. We hope this award helps to commemorate his rich legacy and all he has done for the community."

CACI President and CEO John Mengucci will accept the award on behalf of Dr. London. Nominations for all other categories are open until March 26.

[WashingtonExec to Posthumously Honor Dr. J. Phillip "Jack" London with Lifetime Achievement Award \(yahoo.com\)](#)

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## **Napa Appoints Interim Police Chief**

*(Patch 18 Feb 21) ... Maggie Fusek*

The city of Napa has selected Sylvia Moir to serve as interim chief of police.

Napa City Council voted unanimously Tuesday to appoint Moir as interim chief starting Monday while the city works to fill the vacancy created by the retirement of Chief Robert Plummer.

"I am humbled and grateful to serve the City of Napa Police Department and the community while they search for a permanent chief to fill the role," Moir said. "I am equally confident that my enthusiasm and experience in municipal policing will support and advance the service that the men and women of the Napa Police Department provide as they safeguard the community."

Moir is expected to serve as interim chief for up to 6-7 months as the city conducts a formal recruitment process for its next permanent chief of police.

"Throughout the assessment process, Sylvia Moir demonstrated that she is a knowledgeable, passionate and dynamic public servant that is ready to assist our community," Napa City Manager Steve Potter said.

Plummer's retirement was announced Jan. 1.

"This year, in particular, has thrown unique challenges our way," Potter said. "I am immensely grateful for Chief Plummer's leadership during this summer's protests and civil unrest and for keeping our residents safe."

Plummer served as chief since 2018. He is credited with advancing the Napa Police Department's use of technology, including expediting the deployment of body-worn cameras and reviving the NAPACAMS program to increase cameras in the downtown corridor. During his tenure, he also increased diversity within the department and transparency with the community.

In a statement announcing his retirement, Plummer said his time with the Napa Police Department was exceptional and a highlight of his 30-year law enforcement career.

"It has been a pleasure to serve the Napa community while working with some of law enforcement's finest," Plummer said. "Upon my departure, I will be leaving the City of Napa in good hands with the men and women of the Napa Police Department, both civilian and sworn. They are all dedicated professionals and take immense PRIDE in providing the highest level of service to their community.

"I also want to thank the local community for welcoming my wife and I and making us feel at home," Plummer said. We will reflect on our many fond memories in Napa, but it is time for us to return to our roots in Las Vegas and be in our children and grandchildren's lives."

As for Moir, she is a California native with a decade of experience as police chief between two organizations: the El Cerrito Police Department from 2010 until 2016 and the Tempe (Arizona) Police Department from 2016 until her retirement in 2020.

Moir spent the majority of her career with the Sacramento Police Department, where she served in every division of the department and acted as a member of the Sacramento Police Honor Guard. Additionally, she worked as the incident commander for hundreds of planned and spontaneous events and as a trainer in several policing subjects.

Notably, Moir completed rigorous training with the U.S. Army Old Guard at Fort Myer, Virginia and Arlington National Cemetery.

Since her retirement in October, Moir has served as the principal of the Macrae Group, specializing in public safety, tactics, and education; as the chair of the Community Policing Committee of the International Association of Chiefs of Police; as an advisor for WRAP Technologies; as a member of the Law Enforcement Immigration Task Force; and as an executive fellow for the Police Foundation.

She was appointed by Gov. Jerry Brown to serve on the California Peace Officers Standards and Training Commission for two terms; was on the Executive Board of the Arizona and California Associations of Chiefs of Police, and is a past president of the Police Executive Research Forum.





Moir earned a bachelor's degree in criminal justice from California State University, Sacramento, a master's degree in organizational management, and a master's degree from the **Naval Postgraduate School**-Center for Homeland Defense and Security.

"We are confident that Moir will help push forward Napa Police Department's commitment to integrity and professionalism as well as provide stable leadership while we work through this transitional period," Potter said.

[Napa Appoints Interim Police Chief | Napa Valley, CA Patch](#)

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## **GAPS names new director of operations**

*(Gazette Times 18 Feb 21) ... Caitlyn M. May*

Russ Buttram is the new executive director of operations for Greater Albany Public Schools.

The announcement was made on Monday.

Buttram, who had served as the district's transportation director since 2016, replaces former director Russ Allen.

Allen announced his departure from GAPS last month to pursue a supervisor position with Willamette Education Service District.

"Mr. Buttram is consistently described as hardworking, smart, a great communicator, good with people of all stripes, a systems thinker and even-keeled," read a statement from the district on the leadership change. "We are excited to add Russ to our leadership team."

Buttram graduated from South Albany High School in 1992 and went on to earn a bachelor's degree in business from Oregon State University. He served in the Marine Corps until 2016, earning a master's degree in systems analysis from the **Naval Postgraduate School** in 2008.

[GAPS names new director of operations | Local | gazettetimes.com](#)

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## **Six candidates to interview for Bozeman Police Chief**

*(KBZK Bozeman 19 Feb 21)*

BOZEMAN — After a nationwide recruitment and screening process that attracted 69 candidates, the City of Bozeman has invited six candidates to interview for the Chief of Police position.

According to a press release, the recruitment began in November with the City's selected executive search firm, Ralph Andersen & Associates, meeting with the City Commission members, the City's Executive Leadership Team, community stakeholders and the police department's staff.

The City also held an online community meeting which was open to the entire Bozeman community.

Information gathered from these meetings provided input into the recruitment and selection process.

The candidates have been selected to interview via videoconference on Monday, February, 22, 2021 with interview panels including community stakeholders and the City's leadership. Following the interviews, a smaller number of candidates will be invited back to interview inperson in Bozeman.

Included in that visit will be an opportunity for the Bozeman community to interact with the finalists.

The six candidates are:

### **Donna White**

Donna White currently serves as a Commander for the Marina Police Department. Prior to this appointment she worked as a Captain with the Sierra Madre Police Department where she oversaw both Operations and Administration. Donna began her law enforcement career with the Pasadena Police Department where she worked for over 13 years. Prior to her law enforcement career, Donna and her husband were entrepreneurs and private business owners for over 20 years, developing, running, and



selling several small businesses. Donna has worked a wide variety of assignments throughout her career including hostage negotiator and peer counselor. She developed a deep commitment to working with law enforcement volunteers, serving as the first designated fulltime Volunteer Coordinator for the Pasadena Police Department. As the Volunteer Coordinator Donna managed and led approximately 150 active volunteers. She recruited, utilized, and institutionalized volunteers throughout the department and in programs related to homeland security issues. Under her supervision and leadership, the Pasadena Police Department's Volunteer Services Program was chosen as a recipient of the Outstanding Achievement in Law Enforcement Volunteer Programs Award by the IACP.

Donna holds a Master of Arts in Security Studies from the **Naval Postgraduate School**, Center for Homeland Defense and Security. In 2009 she was chosen to serve as the Naval Postgraduate School, Distinguished Fellow assigned to the Department of Homeland Security in Washington D.C. Donna also holds a Master of Arts Degree in Behavioral Science and is a graduate of California POST Command College. She is currently a Public Administration Doctoral Candidate at the University of La Verne. Donna loves to fish as well as hike and adventure travel.

### **Jim Baumstark**

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.

### **Steve Davis**

Steve is a retired Captain from the Anaheim Police Department. Steve spent 34 years in law enforcement, with his oversight and experience covering a wide range of specialized areas. He is a graduate of the FBI National Academy (Quantico, Virginia), Executive Leadership Institute, AntiDefamation League Anti-Terrorism School (Washington DC), Dignitary Protection School (US State Department) and Gavin DeBecker's Threat Analysis Academy. Steve holds a Masters Degree and an Executive Certificate from Peace Officer Standards and Training. During his tenure as a law enforcement officer, Steve worked in Detectives, Motorcycle Operations, Internal Affairs, Criminal Intelligence, and Air Operations as a helicopter observer. He spent 20 years on SWAT, both as an operator as well as the Commander for the specialized unit. Steve was responsible for the Dignitary Protection Unit, which handled all operations involving high level officials ranging from City Council members to the President of the United States. Steve still maintains his secret clearance. Prior to his retirement, Steve was responsible for the oversight of the Orange County FBI Computer Forensic Laboratory, and the Orange County Intelligence and Assessment Center. Steve has a broad depth of knowledge within the law enforcement community and maintains relationships throughout the local, national, and international law enforcement community. Steve is married to a retired law enforcement officer and has two daughters. Both daughters attend Montana Tech University on volleyball scholarships and are both studying



medicine. Steve resides with his wife in Gallatin Canyon where his wife's family has a rich history dating back to the early 1900s.

### **Eric Paulson**

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**

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.

### **Tom Wilbert**

Tom Wilbert has 35 years of law enforcement experience. He spent the first 25 years with the East Lansing, Michigan Police Department, where he worked his way up through the ranks, serving for 5 years as Chief of Police. In 2010 he moved from East Lansing to New Braunfels, Texas where he served as Chief of Police for 10 years. He retired from the New Braunfels Police Department in October, 2020. Tom has earned two Master's Degrees, one from Michigan State University in East Lansing, and one from Western Michigan University in Kalamazoo. He is also a graduate of the Northwestern University Traffic Institute School of Police Staff and Command. Tom is a 3rd generation police officer. His family has been in policing since 1918. Tom has been involved in community service for most of his adult life. He chaired four fundraisers which raised 1.4 million dollars for St. Jude Children's Research Hospital. He was awarded the Governor John Swainson Award for Historic Preservation from the State of Michigan. Tom has served as a board member for 9 different non-profit agencies and has been the president of four. Tom served multiple years as the president of both the East Lansing and New Braunfels Kiwanis Clubs. He served on the Board of the Children's Advocacy Center of Comal County and he is a past winner of the Comal County Communities in Schools "Great Legs Contest." Tom and his wife (Willie) have three grown children. His oldest daughter Emily is a resident of Bozeman, Montana.

[Six candidates to interview for Bozeman Police Chief \(kbzk.com\)](https://www.kbzk.com)



## MCSC, MCTSSA ‘Utilize’ NPS graduates

*(DVIDS 19 Feb 21) ... Amy Forsythe*

Many of the officer billets at Marine Corps Systems Command and Marine Corps Tactical Systems Support Activity are filled with Marines who recently graduated with a master’s degree from Naval Postgraduate School, located in Monterey, California.

When Marines complete their program at NPS, they receive orders to a new command and begin a three-year utilization, or pay-back tour, as part of their four-year commitment for continued military service.

According to Marine Corps Order 1524.1, NPS is the primary source of graduate education for the Navy and Marine Corps. “Its naval-focused curricula are central to the development of a resilient, knowledgeable and adaptable professional force. Each program is specifically designed to match educational skill requirements with the knowledge, skills and abilities required by the major area sponsor.”

Many of officers are working in a new career field and applying highly technical skills needed to support certain specialties. The Marine Corps has been sending officers to NPS for several decades and in recent years began sending enlisted Marines to fill critical gaps needed by the naval services.

Marines come from a wide variety of fields and, upon graduation, will obtain an additional military occupational specialty, ranging from Operations Analysts (8850), Data Systems Management Officers (8848) Electrical Engineers (8824) and Computer Scientists (8846) and Space Operations (8866). Graduates fill critical roles in ever-changing and emerging fields throughout the Marine Corps.

Many people often mistake attending NPS as a retention tool for the Marine Corps, but Col. Randy Pugh, senior Marine representative and associate Dean of Research at NPS, explains that the program is actually designed to make Marines more capable as warfighters and to serve the evolving needs of the Marine Corps in the areas of science, technology, engineering and mathematics (STEM)space systems operations, computer science, operations research, electrical engineering, information and electronic warfare.

“Completing NPS and earning a master’s degree teaches students things they would never get through normal experiences in the fleet or field,” said Pugh. “Students leave NPS with knowledge and skills that are different than their peers who did not come to Monterey.”

There are nearly 1,300 students enrolled year-round at NPS. The student body consists of personnel from the five uniformed services, officers from approximately 30 partner countries and a small number of civilian federal and state employees.

Most NPS technical degree programs last two years. Once students graduate, they receive orders to serve in specific billets spread across 78 different organizations and at 30 separate bases and stations. Upon graduation, students report to their new commands and begin working in their new roles in the 88XX fields.

MCSC, located in Quantico, Virginia, and MCTSSA, located at Camp Pendleton, California, have 60 billets for Marine officers that are fulfilling utilization tours in various roles.

“The NPS GEP officers are critical to MCTSSA as they support significant enterprise-level initiatives and efforts,” said MCTSSA Commanding Officer, Lt. Col. Michael Liguori. “We get highly motivated officers with a desire to solve complicated problem sets. Our mission is to build capacity where needed within the Fleet Marine Force and these Marines bring tremendous talent and critical thinking skills to develop and deliver new capabilities for the FMF.”

There are approximately 16 NPS graduates assigned to MCTSSA, filling critical roles within the command’s cyber, naval integration and acquisitions divisions. Liguori also attended NPS and earned a Master of Science degree in Information Technology Management in 2014.

His utilization tour was spent as a Branch Head at Manpower and Reserves Affairs responsible for overall portfolio and operational management of manpower systems and data with a focus on DevSecOps,

Data Center and Network Operations and associated system Information Assurance and Information Management capabilities.

“Combined with the MCTSSA civilian workforce and experience, MAGTF [command, control, communications, computers and intelligence] system, and the tactical networks, our NPS officers provide real-time technical experience because they’re fresh from the classroom and ready to apply what they learned,” Liguori said.

MCTSSA’s current executive officer, Maj. Adam Foushee, also attended NPS and earned his Master of Science degree in Electrical Engineering in June 2016. Foushee served his utilization tour at MCSC in Quantico, Virginia, from June 2016 to June 2019, where he served as the lead systems engineer for Terrestrial High-Capacity Communications systems.

Foushee, a CH-53E pilot, recommends to others going to NPS to take the graduation education opportunity as a chance to ‘bloom where you’re planted.’ He advises for students on their way there to take courses in systems engineering and program management because it is a foreign language to most and it will pay dividends in every utilization tour. He said this is how they will become more tactically proficient while continuing their military career.

Learn more about the Marine Corps Graduate Education Program on [www.marines.mil](http://www.marines.mil). You can find more information about other NPS educational opportunities at <https://nps.edu>.

[DVIDS - News - MCSC, MCTSSA ‘Utilize’ NPS graduates \(dvidshub.net\)](http://dvidshub.net)

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## **BGHS grad to the rescue, helps freezing turtles in Texas**

*(Sentinel-Tribune 20 Feb 21) ... Roger LaPointe*

Sea turtles are the latest victims of the winter storms and freezing temperatures in Texas, but rescue efforts from volunteers like Bowling Green native and naval officer Susan Johnson are giving 300 of them a fighting chance.

Freezing sea turtles started showing up on the Padre Island beach Thursday.

Johnson was part of the volunteer effort working with Sea Turtle Inc. of South Padre Island. She is a 2015 Bowling Green High School graduate and 2019 graduate of the U.S. Naval Academy and on active duty, while part of U.S. Navy Pilot training in Corpus Christi, Texas.

She used her truck to help with the turtle rescue, moving them to a heated warehouse at the Naval Air Station Corpus Christi. Johnson then stood on “turtle watch” Thursday night to insure the safety of the sea creatures that she loves.

Due to the extreme cold, the turtles were at risk of dying. The reptiles start shutting down into a cold comatose state, which makes them easy targets for predators and if it’s cold enough they can also freeze. Padre Island National Seashore is a protected area with beaches that are a sheltering area for rare Kemp’s ridley sea turtles. They are considered an endangered species and possibly the rarest of sea turtles. They grow up to 100 pounds in weight with a shell 2 feet in length.

“A lot of them, a large majority, are surviving,” Laura Johnson, Susan’s mother said. “They are keeping them warm. It’s definitely a rescue. I think they are are hoping to release them after four days, but for some of them, it’s been too hard on them.”

When Susan was attending **Naval Postgraduate School** in Monterey, California, to complete her Master of Aerospace Engineering degree last year, sea turtles would join her while she was SCUBA diving in Monterey Bay. Laura said she loves swimming with the peaceful turtles.

“She’s got a real soft spot for the turtles,” Laura said.

Like many living on Padre Island, Susan has been without electricity for four days. She has also been without water, due to a water main break.

Average temperatures in February on Padre Island are around 60 degrees and residents have been dealing with below freezing temperatures for days. Temperatures are expected to be back up to the low 60s this weekend.





This is Susan's second natural disaster in less than a year. She was stationed in Pensacola, Florida, when Hurricane Sally hit in September. Due to flooding and wind damage, Susan lost the beach front condo, and also lost her car to the hurricane. She was without power and water for four days until her condo was condemned, Laura said. It was after that experience that she bought the pickup truck that volunteers used to transport the turtles.

[BGHS grad to the rescue, helps freezing turtles in Texas | Community | sent-trib.com \(sent-trib.com\)](#)

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## **Engineers Week Spotlight: Cmdr. Cory Maccumbee's Engineering Base is a Firm Foundation for Success**

*(DVIDS 21 Feb 21) ... Matthew Stinson*

Cmdr. Cory Maccumbee, assistant operations officer, Magellan Team, is representing Naval Facilities Engineering Systems Command (NAVFAC) Washington for National Engineers Week. He serves in the Operations Business Line at NAVFAC Washington's Core in Washington D.C.

As an Assistant Operations Officer, Cmdr. Maccumbee is tasked with managing military construction and special projects at Joint Base Andrews, Naval Support Activity Annapolis, Naval Support Activity Bethesda, Marine Corps Base Quantico, Joint Base Anacostia-Bolling, Thurmont and Marine Barracks Washington. Previously, he served as the Facilities, Engineering and Acquisition Division Director at Public Works Department Bethesda and the Resident Officer in Charge of Construction at Joint Base Andrews.

For all his experience as an officer in the Civil Engineering Corps (CEC), Cmdr. Maccumbee did not always plan on a career in facilities engineering.

"My older brother is an active-duty Captain (sel) in the Coast Guard Civil Engineers, and he attended the Coast Guard Academy. I tended to follow his lead growing up, which factored into my decision to attend the Naval Academy. I also always liked math and science, so engineering was a good fit during undergrad. After graduation, I was supposed to be a pilot but encountered medical issues during flight school, which led to me drop from the flight training pipeline. As a young junior officer with no real home, I happened to wander into the Public Works Department building in Pensacola looking for a temporary duty assignment. Next thing I knew, the Public Works Officer was helping me join the Civil Engineering Corps. The rest is history from there."

Cmdr. Maccumbee earned a master's degree in systems engineering analysis from the **Naval Postgraduate School**, as well as a master's degree in engineering project management from the University of Maryland. He attributes much of his success, especially at NAVFAC Washington, to his engineering background.

"I've found engineering to provide me with a number of skillsets throughout my career. It has equipped me to work in many different roles due to the challenging project management, problem solving, and communication skills required in the design, construction, and public works roles within NAVFAC. I enjoy working with all the talented individuals at NAVFAC and the teamwork required to support our warfighters and their families."

[DVIDS - News - Engineers Week Spotlight: Cmdr. Cory Maccumbee's Engineering Base is a Firm Foundation for Success \(dvidshub.net\)](#)

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