



# NPS IN THE NEWS

## Weekly Media Report – Feb 7 - 20, 2023

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### RESEARCH:

#### [Bridging the Gap: NPS to Accelerate Innovation from Concept to Capability](#)

*(Navy.mil 10 Feb 23) ... Rose Mena-Werth*

*(NPS.edu 10 Feb 23) ... Rose Mena-Werth*

*(EIN 10 Feb 23) ... Rose Mena-Werth*

Innovation has long been part of the foundation of U.S. military power. Indeed, the call for greater innovation is at the forefront of both the National Security Strategy and the National Defense Strategy.

#### [Eglin Air Force Base to release red weather balloons from Santa Rosa Beach](#)

*(WearNews3 10 Feb 23)*

*(Fox 10 News 10 Feb 23)*

Red weather balloons will be released from Santa Rosa Beach beginning Saturday, according to Eglin Air Force Base...The balloons will be released from 6:30 a.m. to 5:30 p.m. to collect weather data for a **Naval Postgraduate School** research project to understand the physical interaction between the lower atmosphere and the upper ocean, according to Eglin Air Force Base.

#### [Qualcomm and Naval Postgraduate School Announce Collaboration to Advance Technological Solutions](#)

*(NPS.edu 14 Feb 23) ... Lt. Cmdr. Ed Early*

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*(EIN 14 Feb 23) ... Lt. Cmdr. Ed Early*

Two well-known California institutions of research and innovation – the Naval Postgraduate School (NPS) and Qualcomm Technologies, Inc. – are joining forces in a strategic partnership focused on emerging disruptive technologies with potential applications to U.S. Navy and U.S. Marine Corps capability needs.

#### [US Navy Teams with Qualcomm to Research 5G, Artificial Intelligence](#)

*(Defense News 13 Feb 23) ... Colin Demarest*

The **Naval Postgraduate School** and wireless specialist Qualcomm Technologies inked a cooperative research agreement to explore 5G, artificial intelligence and cloud computing, some of the U.S. Defense Department's most pressing priorities.

#### [Naval Postgraduate School, Qualcomm Forge Emerging Tech R&D Partnership; Aaron Weis Quoted](#)

*(Executive Gov 16 Feb 23) ... Jamie Bennet*

The Naval Postgraduate School and Qualcomm Technologies have agreed to explore military applications of 5G, artificial intelligence and other emerging technology under a cooperative research and development agreement.



## STUDENTS:

### [What Is More Important for Ukraine to Win: The Explosion of a Tank or the Spread of Information about a Tank Explosion?](#)

*(Small Wars Journal 6 Feb 23)* ... George Chkhikvadze, Matthew J. McGowan, Trevor Davison, and Corban Pierce

The YouTube video titled “Russian tank explodes in HUGE ball of flames after Ukrainian airstrikes” showcases the immediate effects of a Ukrainian airstrike on a Russian tank on Ukrainian ground troops engaged in combat somewhere on the front line. In less than one month the video, shared by the United Kingdom outlet, The Sun, accumulated almost 400,000 views and more than 5400 likes. In it, Ukrainian troops seem to smile and joke about the effectiveness of the strike while the tank is still engulfed in flames and smoke billows up to the sky. These videos are common, with more links available [here](#), [here](#), and [here](#). The ubiquity of these videos speaks to the power of the image of a burning tank to celebrate Ukrainian victory and shore up support within the country and internationally... George Chkhikvadze is the Deputy Head of the Division in the Policy and Development Department of the Ministry of Defense of Country Georgia. He is currently studying Information Strategy and Political Warfare at the **Naval Postgraduate School** (CA, US). He also owns a master's degree in philosophy and has more than 15 years of experience in analytical and research work. His main research areas are hybrid warfare issues and economic security topics.

## FACULTY:

### [Balloon Fiasco Suggests Disarray in Beijing](#)

*(Newser 6 Feb 23)* ... John Johnson

*(EuroNews 6 Feb 23)*

After a US spy plane collided with a Chinese jet fighter over China's Hainan Island more than 20 years ago, the two nations set up hotlines and promised better communications, writes David Sanger in a New York Times analysis. Last week's bizarre balloon story illustrates a failure on that front. "The fact that Chinese officials, realizing that the balloon had been spotted, did not call to work out a way to deal with it was revealing," writes Sanger. It also suggests that China's own intelligence network isn't communicating with its nation's civilian leadership, he adds. For the record, China continues to insist the balloon was a weather balloon, though the US says it was for surveillance. US authorities continue to search the Atlantic for debris that could settle the issue after shooting down the balloon on Saturday... China had no choice but to respond forcefully in public to save face, according to a Reuters story quoting analysts. But most agree it will blow over. "I'd expect they'd protest moderately but hope to sweep this under the rug and reinstate progress on senior-level visits within months," says Christopher Twomey of the US **Naval Postgraduate School** in California. A survey of China's social media suggests that people in China were largely shrugging off the incident, rather than getting angry over the US decision to destroy the balloon.

### [Vengeance, Virtue and “Who We Are” | Bill Whalen and Zachary Shore | Hoover Institution \[Audio Interview\]](#)

*(Ricochet 10 Feb 23)*

A look back at wartime moral dilemmas confronting America's “greatest generation” – dropping atomic bombs, internment of Japanese-Americans, whether to starve Axis populations – all raise questions concerning how present-day leaders will confront crises. Zachary Shore, a Hoover Institution national security fellow and **Naval Postgraduate School** professor, discusses lessons learned from World War II and the fine art of understanding enemies especially when dealing with the likes of Vladimir Putin and Xi Jinping.

### [International Campaign Explores Missile Defense Solutions](#)

*(MilitarySpot 14 Feb 23)*

Twenty-two nations from North America, Indo-Pacific, Europe, and the Middle East, along with three international organizations gathered in Monterey, Calif., Dec. 11-18 to collaborate on Nimble Titan 24, a premier integrated air and missile defense campaign of experimentation... The event opened with a keynote speech by Dr. James Wirtz, professor of National Security Affairs from the **Naval Postgraduate School**.



## [How Much Is US Aid to Ukraine Costing You?](#)

*(Anti War 18 Feb 23)* ... David R. Henderson

In 2022, the U.S. government approved expenditures of \$113 billion on aid to Ukraine. The Committee for a Responsible Federal Budget writes... David R. Henderson is a research fellow with the Hoover Institution and an emeritus professor of economics in the Graduate School of Business and Public Policy at the **Naval Postgraduate School**.

## **ALUMNI:**

### [County Hires Public Safety Director](#)

*(Brunswick News 8 Feb 23)* ... Michael Hall

Glynn County has a new public safety director.

Scott Ebner will assume the role in March after accumulating more than 30 years of law enforcement experience in New Jersey and Florida... Ebner has also been through training stints at the FBI National Academy and the **Naval Postgraduate School** Executive Leaders Program and is certified by the New Jersey State Police Academy and the Southwest Florida Criminal Justice Academy.

### [Roy Bridges, Mark Kelly To Be Inducted Into Astronaut Hall Of Fame](#)

*(AV Web 6 Feb 23)* ... Kate O'Connor

Former NASA astronauts Roy Bridges and Mark Kelly will be inducted into the U.S. Astronaut Hall of Fame as its class of 2023. A retired U.S. Air Force Major General, Bridges piloted the Space Shuttle Challenger for the STS-51F mission in July 1985 and served as director of NASA's John F. Kennedy Space Center from 1997 to 2003. He holds a bachelor's degree in engineering science from the U.S. Air Force Academy and a master's degree in astronautics from Purdue University. Bridges has logged 4,460 hours in aircraft including the F-100, F-104, YA/A-10, A-37, C-11, F-15, T-37 and T-38...Currently a senator for Arizona, U.S. Navy combat pilot Mark Kelly was selected as an astronaut in 1996 alongside his identical twin brother, Scott. Kelly has gone to space four times on missions STS-108, STS-121, STS-124 and STS-134. He has logged more than 5,000 flight hours in over 50 types of aircraft and flew 39 combat missions in Operation Desert Storm. Kelly holds a bachelor's degree in marine engineering and nautical science from the U.S. Merchant Marine Academy and a master's degree in aeronautical engineering from the U.S. **Naval Postgraduate School**.

### [Commander Joseph St. Michael Hamilton assumed command of the USS Porter](#)

*(Walter Boro Live 10 Feb 23)*

Commander Joseph St. Michael Hamilton assumed command of the USS Porter (DDG 78) at Norfolk Naval Station in Virginia. A 2001 graduate of Colleton County High School, Hamilton was a member in the NJROTC program, the National Honor Society, and the Band of Blue. CDR Hamilton is a 2005 graduate of the Naval Reserve Officer Training Corps from the Citadel Military College, earning a Bachelor of Science degree in Computer Science...A career Surface Warfare Officer, CDR Hamilton's shipboard assignments include service aboard the USS Philippine Sea (CG 58) as Operations Information Division Officer, Antisubmarine Warfare Officer, and Navigator. Then service aboard USS Russell (DDG 59) as Operations Officer, and USS Patriot (MCM 7) as Executive Officer and Commanding Officer. CDR Hamilton further pursuits while ashore include earning a Master of Business Administration with a concentration in Financial Management and Joint Professional Military Education from the **Naval Postgraduate School**. CDR Hamilton also had the following tours: Flag Aide to the Commander, Navy Region Midwest, served on the Chief of Naval Operations Staff (OPNAV) as an analyst for the Programming Division (N80), and following service as Deputy Executive Assistant to the Deputy Chief of Naval Operations for Fleet Readiness and Logistics (OPNAV N4). Most recently, Hamilton served as Executive Officer of USS Porter (DDG 78).

### [Brownsville native to head Border Patrol Rio Grande Valley Sector](#)

*(Yahoo News! 10 Feb 23)* ... Laura B. Martinez

Not only has she returned to her hometown of Brownsville after being gone for 27 years, but she is also now the chief of the Rio Grande Valley Sector of the U.S. Border Patrol... Chavez began her Border Patrol career at Imperial Beach Station in the San Diego Sector. She continued her secondary education and completed her bachelor's degree in Criminal Justice Administration. She achieved her master's degree in Homeland Security Studies at the **Naval Postgraduate School** in 2015.



## [The Bind Spot: How a Gap in Climate Security Strategy Leads to Opportunities for Maligned Actors in Strategic Competition](#)

*(Small Wars Journal 13 Feb 23)* ... Major Alexander Kenna and Major Matthew Alexander

As the US military continues to develop its climate security strategy and action plans, the current publications and programs only briefly mention proactive international actions by enhancing disaster relief and humanitarian assistance efforts. However, this approach is not a sufficient response to the complexity of climate insecurity. The current lines of effort for the DOD Climate Adaptation Plan would benefit from an additional measure that is proactive and international at its base... Major Matthew R. Alexander is an Army Special Operations Civil Affairs Officer with over 11 years in service with multiple deployments to the Middle East and Latin America. He holds a Master of Arts in International Relations from the University of Oklahoma and recently received a Master of Science degree in Information Strategy and Political Warfare from the **Naval Postgraduate School**.

## [Aggressive Deterrence Requires a Sharp Sword](#)

*(USNI 14 Feb 23)* ... Lieutenant Commander Trevor DiMarco, U.S. Navy

In late January, Air Force General Michael Minihan, commander of the Air Force's Air Mobility Command, ordered his personnel to accelerate preparations for war with China. The ensuing debate about the general's controversial prediction of war in 2025 and his direction to "aim for the head" at the pistol range distracted from an urgent need for combat readiness. Many military personnel view themselves as technical or administrative specialists removed from the brutality of war. Frank discussion of violence makes them uncomfortable. Yet, this squeamish perspective detracts from the military's principal purpose of deterring or, if necessary, winning a war. Service members must embrace their role in combat to prevent conflict and respond to attacks... Lieutenant Commander DiMarco is an EA-18G Growler pilot and tactics instructor. His previous projects include expeditionary countersurveillance and targeting, standardizing joint maritime strike kill chains, and implementing speed to the fleet acquisitions. He earned a master's degree from the **Naval Postgraduate School** and is currently a student at the Naval War College in Newport, Rhode Island.

## [Los Angeles County Sheriff Robert Luna has created the Office of Constitutional Policing within the Sheriff's Department, and has appointed Eileen Decker as its Director](#)

*(LASD 15 Feb 23)*

The Office of Constitutional Policing will play an important role in eradicating deputy gangs from the Department, in collaboration with the Undersheriff, the Civilian Oversight Commission and Inspector General; in bringing the Department into compliance with consent decrees; and in improving policies, procedures, and operations to ensure the Department is engaging in constitutional practices... Decker received her undergraduate and law degrees from New York University, a Master's Degree in Homeland Security Studies from the **Naval Postgraduate School** and was a Wasserstein Fellow at Harvard Law School. In addition, she is a Past President of the Women Lawyer's Association of Los Angeles.

## [Army Get New Vice Chief, Two Top Commanders Soon- The New Indian Express](#)

*(Hunt Daily News 17 Feb 23)*

The Major change is on the horizon Indian Army's top echelons started rolling with the announcement of new Vice Chief You can find the Army Staff (VCOAS) & two Army Commanders. Lt Gen MV Suchindra Kumar At the moment, Deputy Chief This is Army Staff (Strategy) in the Army Headquarters, will be promoted up to the rank Army Commander As the new Vice Chief This is Army Staff... Chiefs This is Udampur-based Northern Command, Lt Gen Upendra Dwivedi And Pune-based Southern Command Will continue to be at the helm. Lt Gen Raju Is an alumnus Sainik School Bijapur And National Defence Academy The 11th was the date of his commission. Battalion The Jat Regiment 15 December 1984. The General Officer Participated in all-important courses for career development India He is able to do his NDC at the pleasure of his family. Royal College This is Defence Studies, UK. He He also distinguished himself with his contributions. Masters programme in Counter Terrorism, at **Naval Postgraduate School**, Monterey, USA.



## (Radiological) War by Other Means: A Dirty Bomb in Ukraine?

*(National Interest 16 Feb 23)* ... Robert T. Wagner

Fear is mightier than the sword, and few things stoke fear like a dirty bomb. So, it should have come as no surprise when Russia accused Ukraine of building a radiological dispersal device (RDD), possibly setting the stage for a false-flag attack. By manipulating widespread fear of radioactivity, such a device is a potent weapon of terror, and Russia has transformed it into an instrument of “war by other means.” To manage this, relevant chemical, biological, radiological, and nuclear (CBRN) doctrine must also shift to emphasize public information and crisis recovery... Robert T. Wagner is a Senior Weapons of Mass Destruction Subject Matter Expert at Octant Associates, where he supports the Defense Threat Reduction Agency. He holds a Master of Arts Degree in Security Studies from the **Naval Postgraduate School** and is a Nationally Registered Paramedic.

## **UPCOMING NEWS & EVENTS:**

**March 14:** Winter Quarter Awards Ceremony

**Mar 24:** [Winter Quarter Graduation Ceremony](#)



## RESEARCH:

### **Bridging the Gap: NPS to Accelerate Innovation from Concept to Capability**

*(Navy.mil 10 Feb 23) ... Rose Mena-Werth*

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Innovation has long been part of the foundation of U.S. military power. Indeed, the call for greater innovation is at the forefront of both the National Security Strategy and the National Defense Strategy.

In recent months, President Biden and the Defense Innovation Board have called for increased innovation from the Department of Defense, with President Biden asserting, “We have to maintain our military advantage.”

Echoing this imperative, Secretary of the Navy Carlos Del Toro is challenging the Department of the Navy to restore its technological superiority, urging the Navy and commercial industry leaders to stay ahead of our pacing challenge by redoubling innovation efforts.

“The threats we face demand us to do more,” Del Toro said at this year’s Surface Navy Association (SNA) National Symposium.

As part of Del Toro’s goal to accelerate innovation across every corner of the naval enterprise, he has called for a bold new vision for the naval education and innovation ecosystem. Central to this vision is Del Toro’s recent announcement to establish a Naval Innovation Center at the Naval Postgraduate School (NPS).

Focused on answering this challenge, NPS is incorporating a portfolio of current and future initiatives that form an initial Naval Innovation Center operating concept. Together, these efforts will move research solutions from ideas to impacts that add value at greater speed and scale by leveraging cross-institutional approaches to a repeatable innovation process.

“Education is the key connector for this work,” said Del Toro. “Our educational institutions hold great promise and opportunity.”

Because of its location on the NPS campus in Monterey, Calif., the Naval Innovation Center will be near the heart of the nation’s technology corridor, making it a key resource for the Navy and Marine Corps. The Naval Innovation Center will solve complex challenges through applied research, analysis, prototyping, and experimentation in collaboration with the defense industrial base, the technology sector, and academia.

Although the announcement of the Naval Innovation Center at NPS is new, scholarship focusing on innovation and its processes has a long history at NPS. In fact, NPS is the DON’s only educational institution providing advanced certificates, executive education, and master’s degrees in innovation. NPS is one of 24 naval centers of innovation – and the only one that is both a research university and a designated defense laboratory.

However, as Chief of Naval Operations Adm. Michael Gilday remarked at the 2023 SNA National Symposium, “the challenge is still taking new systems, new platforms, new capabilities from prototype to low-rate production in a timely manner.”

Gilday expanded on this approach by calling for the Navy to “move out as quickly as we can, but in a deliberate manner that’s informed by experimentation,” so the service has increased confidence in the proposed solution’s impact before investing to scale capability.

The Naval Innovation Center at NPS represents a new whole-of-university approach to methodically address naval priorities by curating challenges underpinning key operational problems, ideating possible solutions that apply emerging technologies to those problems, prototyping, collaborating and experimenting with minimum viable solutions, and facilitating the transition to a warfighting capability.

“The NIC operating concept at NPS relies on a combination of new and old processes to establish a complete innovation cycle,” explained NPS Vice Provost for Research Dr. Kevin Smith, who leads NPS’ newly formed Office of Research and Innovation (OR&I). “Ideas will be curated through the Naval Warfare Studies Institute’s engagement with fleet customers, solutions conceived through the Warfare Innovation Continuum workshops, prototyped and experimented with by Naval Innovation Exchange



teams, and then prepared for acquisition strategy through the Department of Defense Management's Innovation Capstone Project.”

As part of the innovation cycle, NPS conducts an annual year-long campaign of analysis through a Warfare Innovation Continuum (WIC) centered on a single overarching naval warfighting theme. Since 2009, the WIC presents a deliberate approach to relevant problem curation and facilitated human design ideation that proposes concepts and capabilities to address complex warfighting challenges.

Each campaign is initiated in the fall through a week-long WIC workshop, where interdisciplinary concept generation teams propose ideas for how to meet associated concept and capability challenges. These teams consist of NPS faculty, warrior-scholars, naval sponsors, industry participants, and Sailors and Marines of the fleet and Fleet Marine Force. Minimum viable concepts emerge and are explored over the remaining three quarters through workshops, academic courses, capstone projects, wargames, research efforts, ship designs, thesis work, white papers, prototyping, and experimentation. Future approaches to the WIC will align with and inform the Navy's Analytic Master Plan (AMP) and future AMP Campaigns of Learning.

Another component of the cycle consists of newly formed Naval Innovation Exchange (NIX) teams – student, faculty, and industry innovators poised to accelerate technology adoption through an iterative interdisciplinary research cycle by driving ideation and prototyping through thorough testing and evaluation.

NIX teams work across education programs to conduct research “sprints” that identify technically informed opportunities for the adoption of new technologies into the fleet and Fleet Marine Force. The initial NIX teams are forming to solve operational problems and are aligned to critical enabling capabilities identified in the CNO's Navigation Plan (NAVPLAN) Implementation Framework – specifically including intelligent autonomous systems (IAS), artificial intelligence (AI), and additive manufacturing (AM).

“We are innovation-driven at NPS,” said U.S. Marine Corps Col. Randy Pugh, director of the Naval Warfare Studies Institute (NWSI). “Officers come here to make a difference, and the NIC at NPS will provide state-of-the-art processes, tools, and physical spaces that will enable them to combine what they are learning and their operational insights to solve real problems alongside faculty, naval engineers, and industry entrepreneurs.”

Project-focused partnerships with industry are facilitated by Cooperative Research and Development Agreements (CRADAs), a catalyst for innovation. NIX teams will bring thought leaders together and expand the solution capability and capacity of the Naval Research and Development Establishment (NR&DE) through iterative development and experimentation with the end user to speed the innovation cycle.

NPS field experimentation began in 2002 to encourage innovation and collaboration between DOD, federal and state government agencies, industry, and academia. Field experimentation events utilized participation from Special Operations Forces (SOF), the Army and Air National Guard, and first responders to provide feedback on the effectiveness, affordability, and feasibility of new technologies.

In 2012, the Joint Interagency Field Experimentation (JIFX) program evolved from successful NPS field research in collaboration with U.S. Special Operations Command (USSOCOM). JIFX is focused on providing a field experimentation resource and innovative cooperative learning environment for DOD and federal agencies with an informing system capable of addressing their unique science and technology capability gaps.

Today, JIFX conducts quarterly experimentation events advancing research and discovery in unmanned systems and autonomous vehicles and associated enabling capabilities. Previous JIFX events included exercising swarm tactics with unmanned air vehicles (UAVs) in collaboration with the Georgia Tech Research Institute, demonstration of winged-UAS vertical launch and recovery from a concealed and confined area with an industry partner, and a quad-rotor UAV that is now in service as a lightweight, low-cost intelligence, surveillance and reconnaissance (ISR) solution for the Marine Corps. NPS JIFX events at Camp Roberts, an Army National Guard installation in Paso Robles, Calif., and in Monterey Bay provide a means to evaluate emerging technologies and prototypes developed in partnership with NPS warrior-scholars.



Multiple NPS programs provide opportunities for Innovation Capstone Projects developing operationally minded strategic leaders and cross-functional solutions for warfighting effectiveness. NPS' Department of Defense Management is now piloting an Innovation Capstone Project that is uniquely focused on developing an acquisition strategy to drive technology transition into programmed capabilities.

Defense management innovation integrates technical, acquisition, and operational domains in education and research to transition technology into warfighting capabilities. Focused on identifying future capabilities and platforms with modernization in mind – hardware upgradable and software updatable at the speed of innovation – Defense Management's Innovation Capstone Projects begin with an identified Program Executive Office (PEO). The PEOs are responsible for the development and acquisition of platforms and warfighting solutions and critical to enabling the transition of innovative capabilities to the Navy and Marine Corps.

To facilitate lowering barriers to collaboration, attracting industry partners, and providing institutional support to project management, NPS' OR&I is building the framework to evolve from a transactional mindset to a collaborative academia-defense-industry approach that will deliver capability at the speed of technological change.

“NPS has built up this incredible strength and network of research power,” said Smith. “Our efforts at OR&I are aimed at not only encouraging research projects but also paving the way for them to succeed past their development stages. With such innovative potential, we need to make sure we complete the cycle and get these solutions into the hands of the warfighter.”

OR&I will facilitate the innovation process and is developing several new mechanisms to optimize the Naval Innovation Center at NPS as a distinct naval capability, fusing defense education and research with operational insight and industry technologies to accelerate innovation for maritime dominance.

“Education and research are two sides of the same innovation coin at NPS,” said Smith. “The Naval Innovation Center will optimize NPS as a technology accelerator. Innovation at NPS is about accelerating impact. The experiential learning of applied research and hands-on innovation delivers solutions and develops solution leaders.”

Warfighter and warfighting development at NPS is a catalyst for technological leadership and decision advantage.

Graduates from NPS return to the fleet with the knowledge and skills and a proven ability to apply what they learned, while the Naval Innovation Center will accelerate and scale their research concepts into capabilities helping to bridge the gap to the end user.

“I think that the United States Navy is exceptional at understanding the integration of the art of war with the science of war,” said Gilday.

NPS is where science meets the art of warfare.

[Bridging the Gap: NPS to Accelerate Innovation from Concept to Capability > United States Navy > News-Stories](#)

[Bridging the Gap: NPS to Accelerate Innovation from Concept to Capability - Naval Postgraduate School](#)

[Bridging the Gap: NPS to Accelerate Innovation from Concept to Capability - EIN Presswire \(einnews.com\)](#)

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## **Eglin Air Force Base to release red weather balloons from Santa Rosa Beach**

*(WearNews3 10 Feb 23)*

*(Fox 10 News 10 Feb 23)*

*(Military.com 10 Feb 23)*

Red weather balloons will be released from Santa Rosa Beach beginning Saturday, according to Eglin Air Force Base.

The 96th Operations Group will release the balloons from Feb. 11 to Feb. 20 from Topsail Preserve State Park in Santa Rosa Beach.

The balloons will be released from 6:30 a.m. to 5:30 p.m. to collect weather data for a **Naval Postgraduate School** research project to understand the physical interaction between the lower atmosphere and the upper ocean, according to Eglin Air Force Base.

[Eglin Air Force Base to release red weather balloons from Santa Rosa Beach | WEAR \(weartv.com\)](#)

[Eglin AFB to release weather balloons \(fox10tv.com\)](#)

[99 Red Balloons: US Air Base Launching Slew of Weather Balloons as Scrutiny Intensifies over Flying Objects | Military.com](#)

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## **Qualcomm and Naval Postgraduate School Announce Collaboration to Advance Technological Solutions**

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Two well-known California institutions of research and innovation – the Naval Postgraduate School (NPS) and Qualcomm Technologies, Inc. – are joining forces in a strategic partnership focused on emerging disruptive technologies with potential applications to U.S. Navy and U.S. Marine Corps capability needs.

NPS, whose campus is based in Monterey, recently signed a Limited Purpose Cooperative Research and Development Agreement (LP-CRADA) with San Diego-based Qualcomm Technologies. This agreement combines the capabilities and the talent of the two organizations into a united problem-solving enterprise.

Under the LP-CRADA, NPS faculty and students will not only conduct research into 5G wireless communications, artificial intelligence, hardware development platforms, and associated technologies, but they will also develop the concepts of employment needed for military applications and operations.

“The DON is creating a culture that nurtures innovation and drives our competitive advantage,” said Aaron Weis, the Department of the Navy’s Chief Information Officer (DON CIO). “This partnership between NPS and Qualcomm Technologies is another step in the right direction. The CRADA will identify promising emerging commercial technologies so we can rapidly adopt them for full-scale implementation.”

Qualcomm Technologies is the latest industry member that has offered to partner with NPS through the use of a CRADA. Full CRADAs allow the U.S. government to engage in cooperative research efforts with non-federal entities. Such joint research, co-discovery, and mutual learning has proved extraordinarily effective, as it enables the Department of the Navy (DON) to gain immediate benefit by introducing cutting-edge technology, commercial insights and industry partners to the core education and research programs at NPS to applications, while industry learns from operationally experienced students whose perspectives inform development of innovative solutions to warfighting problems.

As part of the LP-CRADA, Qualcomm Technologies will provide software, hardware, and reference design platforms to NPS for experimentation, assessment, and evaluation. NPS students and faculty will work cooperatively with Qualcomm Technologies subject matter experts to understand the capabilities, benefits and limitations of the platforms and technology and to determine potential military applications.



“Over the past several years we have had the privilege of engaging with NPS students, faculty and staff through technical exchanges, presentations and demonstrations,” said Kim Koro, senior vice president, Qualcomm Technologies, Inc. “This CRADA is the next step in building an enduring collaboration between our two entities. Through this interaction, the students and faculty will identify DOD challenges and examine where the application of commercial advancements in technology can provide mission benefits. We will do this by enabling students and faculty with cutting-edge capabilities along with access to the knowledge base for their implementation.”

NPS researchers – including those working within the innovation lab, at other NPS labs and field experimentation sites, and coordinating with users in the fleet – will have the opportunity to experiment with state-of-the-art Qualcomm® Robotics RB5 platforms and Qualcomm® Robotics RB6 platforms, both of which are equipped with 5G wireless connectivity and artificial intelligence/machine learning capabilities.

NPS will also explore cloud and edge computing technology through utilization of the Qualcomm® Cloud AI 100 hardware platform, which is designed to accelerate AI inference – the process of using a trained neural network model to make a prediction – and make edge computing faster and more efficient.

And NPS will have an opportunity to evaluate the Snapdragon® 8 mobile platform with a hardware development kit (HDK). Similar to a software development kit (SDK), the HDK allows for customization of the Snapdragon hardware to suit the needs of the end user.

The cooperative effort with Qualcomm Technologies is being supported by NPS’ Naval Warfare Studies Institute (NWSI), which connects innovative industry partners like Qualcomm Technologies to NPS faculty and student researchers with the ultimate purpose of developing ideas into warfighting concepts and capabilities for the Navy, Marine Corps, and Joint Force.

U.S. Marine Corps Col. Randy Pugh, director of NWSI, welcomes the cooperative effort between NPS and Qualcomm Technologies for a number of reasons.

“Qualcomm Technologies is a great LP-CRADA partner for NPS as they bring world-renowned expertise in highly complex technologies of critical importance to the DOD,” Pugh said. “In addition, they are a company that has demonstrated complete mastery of the process of innovation and building a culture of innovation. For both those reasons, Qualcomm Technologies will be a force multiplier as we develop the Naval Innovation Center at NPS.”

Ultimately, the partnership will leverage the latest in commercial expertise and technology, as well as the innovation and expertise of both organizations, to yield potential answers to the questions facing the Navy and Marine Corps.

“The core of warfighter development at NPS is preparing leaders to solve complex problems,” said the president of NPS, retired Vice Adm. Ann E. Rondeau. “Key to this is bringing cutting-edge technologies into the learning and research environment. This cooperative effort between NPS and Qualcomm Technologies is a great opportunity for our warrior-scholar students and defense-expert faculty to experiment with the latest 5G-enabled technologies and explore innovative solutions to the issues faced by our Navy and Marine Corps. We look forward to working with our colleagues at QTI to fully realize the potential of this partnership.”

The Naval Postgraduate School provides defense-focused graduate education, including classified studies and interdisciplinary research, to advance the operational effectiveness, technological leadership and warfighting advantage of the Naval service. For additional information, visit NPS online at <http://www.nps.edu>.

The Limited Purpose Cooperative Research and Development Agreement (LP-CRADA) does not constitute endorsement of Qualcomm Technologies or its products and services by the Naval Postgraduate School, the Department of the Navy, or the Department of Defense.

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## US Navy Teams with Qualcomm to Research 5G, Artificial Intelligence

*(Defense News 13 Feb 23) ... Colin Demarest*

The **Naval Postgraduate School** and wireless specialist Qualcomm Technologies inked a cooperative research agreement to explore 5G, artificial intelligence and cloud computing, some of the U.S. Defense Department's most pressing priorities.

The collaboration, announced Feb. 13, aims to inform the digital pursuits of the Navy and Marine Corps, while also engaging school faculty and students with some of the private sector's leading scientists and engineers.

"The core of warfighter development at NPS is preparing leaders to solve complex problems," the school's president, retired Vice Adm. Ann Rondeau, said in a statement. "This cooperative effort between NPS and Qualcomm Technologies is a great opportunity for our warrior-scholar students and defense-expert faculty to experiment with the latest 5G-enabled technologies and collaboratively explore innovative solutions to the issues faced by our Navy and Marine Corps."

The partnership is facilitated by what's known as a cooperative research and development agreement, or CRADA, which allows the U.S. government to engage nonfederal entities. Qualcomm is the latest of the school's industry partners; in May, the Navy cut a deal with Microsoft to see its newest tools before they hit the market.

Focus areas of the newly announced deal reflect the military's ambitions to spend billions of dollars on seamless connectivity and computer augmented decision-making. The spending comes as the U.S. shifts its gaze away from the Middle East, after years of counterinsurgency campaigns, and toward technologically savvy China and Russia.

At least one Navy official has in the last year described 5G as a "great enabler" that is "more, better, faster." Fifth-generation wireless technology is expected to provide greater speeds and bandwidth, potentially improving logistics ashore and networking at sea.

Service officials are also leaning into artificial intelligence and autonomy — perhaps best exemplified by Task Force 59, which in December concluded a three-week event dedicated to unmanned systems in Bahrain.

The Navy is "creating a culture that nurtures innovation and drives our competitive advantage," according to the service's chief information officer, Aaron Weis. The NPS-Qualcomm partnership is "another step in the right direction," he added, and "will identify promising emerging commercial technologies so we can rapidly adopt them for full-scale implementation."

Terms of the joint research deal also include the establishment of an innovation lab at the Naval Postgraduate School campus in Monterey, California.

Navy Secretary Carlos Del Toro in December teased the creation of another innovation center, concentrating "on the truly transformational technology that we need, not just two years, five years down the road, but 10, 15 years down the road."

Initial areas of interest, Del Toro said at the time, included AI and machine learning.

[US Navy teams with Qualcomm to research 5G, artificial intelligence \(defensenews.com\)](#)

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## Naval Postgraduate School, Qualcomm Forge Emerging Tech R&D Partnership; Aaron Weis Quoted

*(Executive Gov 16 Feb 23) ... Jamie Bennet*

The Naval Postgraduate School and Qualcomm Technologies have agreed to explore military applications of 5G, artificial intelligence and other emerging technology under a cooperative research and development agreement.

NPS said Monday the partnership will set up an innovation laboratory at the school campus in Monterey, California, as part of the limited-purpose CRADA.

San Diego-based Qualcomm will offer students and faculty members of the U.S. Navy-run graduate school access to the company's Robotics RB5 and RB6 development kits, Cloud AI 100 inference and Snapdragon 8 mobile processor for use in experiments.

Both parties seek to identify the strengths and limitations of the products, as well as to determine how the U.S. Navy and Marine Corps can use these platforms.

Aaron Weis, chief information officer of the Department of the Navy, said the agreement marks a step in DON's efforts to create an innovation culture and drive its competitive advantage.

"The CRADA will identify promising emerging commercial technologies so we can rapidly adopt them for full-scale implementation," added Weis, a 2023 Wash100 awardee.

[Naval Postgraduate School, Qualcomm Forge Emerging Tech R&D Partnership; Aaron Weis Quoted \(executivegov.com\)](https://www.executivegov.com)

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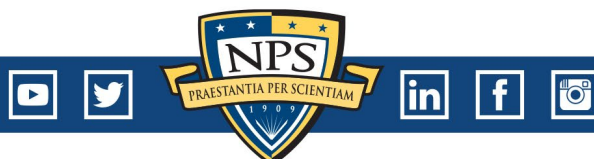
## STUDENTS:

### What Is More Important for Ukraine to Win: The Explosion of a Tank or the Spread of Information about a Tank Explosion?

*(Small Wars Journal 6 Feb 23) ... George Chkhikvadze, Matthew J. McGowan, Trevor Davison, and Corban Pierce*

The YouTube video titled "Russian tank explodes in HUGE ball of flames after Ukrainian airstrikes" showcases the immediate effects of a Ukrainian airstrike on a Russian tank on Ukrainian ground troops engaged in combat somewhere on the front line. In less than one month the video, shared by the United Kingdom outlet, The Sun, accumulated almost 400,000 views and more than 5400 likes. In it, Ukrainian troops seem to smile and joke about the effectiveness of the strike while the tank is still engulfed in flames and smoke billows up to the sky. These videos are common, with more links available here, here, and here. The ubiquity of these videos speaks to the power of the image of a burning tank to celebrate Ukrainian victory and shore up support within the country and internationally.

Coverage of the Russia-Ukraine war again reinforces two critical elements needed to defeat an enemy: a military unit's will to fight and a nation's will to fight. In most instances, these two elements work in tandem and define one another. The psychological resilience and support of the community significantly determines the resistance of the armed forces, just as examples of success on the battlefield contribute to strengthening the community's psychological resilience. In 2014, Russia conducted well-orchestrated operations against Ukraine in the information environment. In addition, the Russians successfully recruited high-ranking politicians and military personnel who surrendered without any resistance to the Russian armed forces in the very first days of the occupation. Russia's preparation of the battlefield through information and media significantly contributed to their successful occupation of the Crimean Peninsula and part of the Donbas and Lugansk regions. At the same time, the population living in Crimea and the eastern regions of Ukraine with ethnolinguistic ties to Russia are more likely to believe pro-Kremlin disinformation. Russian propaganda, which convinced the population that Ukraine's interim government was the result of an illegitimate coup, was crucial in ensuring that the military operation had strong support from the Russian domestic audience while the corrupt Ukrainian government was unable



to consolidate the population. After the 2013 Maidan Revolution and the 2014 Russian occupation of Ukrainian territories, Ukraine made significant changes, and the public constantly expressed their desire to become a normal, European-type state. Following Volodymyr Zelensky's election in 2019, the administration persisted in its sovereign course of action. Along with bolstering government institutions and modernizing the military, the Ukrainian government also built a potent strategic communication system to counter Russian propaganda and unite the Ukrainian populous.

As it became overt after the first phase of the failed Russian aggression, the actions taken by Ukraine contributed to the government's favoring of the populace and played a significant role in Russia's failure to achieve its goals and overthrow the Ukrainian government. At the start of the second invasion of Ukraine in February 2022, Ukraine's state agencies have clearly and succinctly disseminated information about Russia's hostile goals, objectives, and actions with popular "must-see" style articles and videos. These bulletins inform the populace about the assistance provided by Western nations, the military successes of Ukraine on the battlefield, and the war crimes committed by the Russians.

Due to the effective communication system of the Ukrainian government, even in the rain of Russian missiles, the psychological resilience of the society increased. Almost all bureaucratic levels, from the president to the military personnel, contributed to this success. President Zelensky introduced himself to the public at the outset of the conflict through a video address recorded on a mobile phone, which showed everyone that he was in the heart of Kyiv with the Cabinet of Ministers, that he was unwilling to abandon the nation, and that he was ready to fight to the end. The video spread like a virus throughout social media and broadcasting companies. President Zelensky's unofficial and war-weary image made him the most popular person, whom even the French president tried to emulate. Furthermore, this viral spread to the general public resulted in an international outcry of support for the citizens of Ukraine against Russia, which otherwise may not have happened.

Ukrainian news sources and social media are massively spreading information about heroic Ukrainian soldiers from different points of the front, which positively impacts the desire of Ukrainians to resist Russian aggression. In the summer of 2022, the Ukrainian fighters besieged in the Azovstal factory in Mariupol became a standard of heroism. At the same time, the words "Russian warship, go f\*\*k yourself" spoken by Ukrainian soldiers to the captain of the Russian warship before their death on the small island of Zmein became the most famous phrase in Ukraine and the post-Soviet space. To raise the sentiments of combatants and the public, the Ukrainian military actively distributes various positive information from the battlefield, including videos of singing a mocking song to the sunken Russian warship "Moscow" or how they play football when the Russians take a break from missile attacks.

Ukrainian media working on the battlefield continuously report on the thousands of dead Russian soldiers and the success of Ukrainian units. Video collages include reports of Russian conscripts captured by the Ukrainians, who have neither uniforms nor military experience. It is remarkable that along with the information about the brutality and Russian war crimes, there are constant reports about how the Ukrainian military treats Russian prisoners humanely; they allow them to call their families and treat them with hot food. At the same time, videos demonstrating the devastation of Russian military hardware by Western weaponry have a beneficial impact on public opinion. The fact that information is often disseminated humorously increases its persuasive value. For example, collages about a Ukrainian farmer who successfully steals tanks left behind by Russian soldiers fleeing from the battlefield are trendy on social networks. According to social media clips, the farmer already has a relatively solid fleet of Russian tanks.

The purpose of spreading such information is to emphasize the bravery of Ukrainians and to indicate that the information about the invincibility of the Russian army is a myth and nothing else. Such a campaign played an essential role in the fact that many Ukrainians express their desire to join the Ukrainian army and take part in the defeat of the Russians while Russia is trying to complete the army by declaring mobilization.

The Ukrainian military on the front line has shown that the spread of positive information can support their cause and strategic level objectives while also providing a psychological impact on the enemy. Without the spread of battlefield footage through social media, would the general public continue to call for their governments' support if they cannot relate to their Ukrainian brothers and sisters fighting?



George Chkhikvadze is the Deputy Head of the Division in the Policy and Development Department of the Ministry of Defense of Country Georgia. He is currently studying Information Strategy and Political Warfare at the **Naval Postgraduate School** (CA, US). He also owns a master's degree in philosophy and has more than 15 years of experience in analytical and research work. His main research areas are hybrid warfare issues and economic security topics.

Major Matthew J. McGowan is an Infantry Officer in the United States Marine Corps since May 2011. He is originally from outside of the Philadelphia, PA area. Since joining the Marine Corps, he has deployed to both the Indo-Pacom AOR, and also to the Middle East with a Marine Expeditionary Unit. He is currently a student at the **Naval Postgraduate School** studying Information Strategy and Political Warfare.

Major Trevor Davison is a combat engineer officer in the Marine Corps from Baltimore, MD. He has served in Iraq and Afghanistan, most recently in Helmand Province as a member of Task Force Southwest from 2019 to 2020. He currently studies Information Strategy and Political Warfare at **the Naval Postgraduate School** in Monterey, CA.

Major Corban Pierce is an active-duty Marine Corps Infantry Officer. He has had the honor of serving around the world; in major combat operations, crisis response missions, and dynamic force employment. He specializes in Operations in the Information Environment (OIE), multi-domain tactics, and Naval MAGTF employment.

[What Is More Important for Ukraine to Win: The Explosion of a Tank or the Spread of Information about a Tank Explosion? | Small Wars Journal](#)

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## **Adapting Navy Medicine for Future Warfighting: Scenario Thinking for Combat Casualty Care**

*(CIMSEC 15 Feb 23)* ... Art Valeri, Jay Yelon, Juanita Hopkins, and Seamus Markey

In May 2018, the Chief of Naval Operations directed a comprehensive review of Navy Medicine's ability to support Distributed Maritime Operations and Expeditionary Advanced Basing Operations across all warfighting domains.<sup>1</sup> An effective strategy must anticipate the future environment. Although history shows that accurate forecasting is nearly impossible, scenario thinking can help prepare for multiple alternative futures.<sup>1, 4</sup> Medical planning for future conflicts is a vital component of support of the National Security Strategy. Using lessons learned from past conflicts and predicting the needs of injured or ill service members are vital for planning. Although attention to conflict in the Pacific appears to be a priority, as it aligns with the national strategy, the Navy and Joint medical leadership must also prepare for various possibilities. Within our discussion, we will use scenario thinking as a framework to identify key questions for analysis.

We will approach our scenario thinking through a four-step process:

- Identifying the driving forces
- Identifying the critical uncertainties
- Development of plausible scenarios
- Discussion of implications and ways forward

Our discussion will focus on Navy Medicine fully understanding the limitations of this approach as the move towards a more joint approach is more effective and realistic. However, this same approach can serve equally effectively in joint discussions. In discussing implications and paths forward, we will utilize a framework of manning, training, and equipping our medical teams.

Identifying the Driving Forces

A common business approach to understanding the driving forces in a changing environment surveys political, economic, sociocultural, technological, legal and environmental (PESTLE) factors.<sup>5</sup> It also applies to military healthcare and specifically to combat casualty care. Identification of legal and



environmental forces is likely beyond the scope of this discussion, and as such will proceed with a PEST analysis.

**Political:** The National Security Strategy orients politics for military leaders in developing approaches for potential future conflict. Although this provides the framework, many factors influence the direction of leadership as contingencies and plans are made. The major focus revolves around the complex relationship with China and the potential conflict with Russia. Additionally, there is always the threat of terrorism, non-state actors, the impact of pandemic diseases, cyber threats and other concerns. All these issues will frame strategy and medical planning, as will the formation of the Defense Health Agency (DHA) and the implications for individual services' medical services. The issues of joint medical forces operating in environments that are not native to the service can potentially cause points of friction if DHA sees this as an imperative.

**Economic:** Although financial solvency is not typically discussed within the military healthcare framework, discussions regarding supply chain, procurement, and sustainment costs at military treatment facilities and Veterans Affairs healthcare facilities is a significant burden. Procuring medical materials, drugs, and technology in potentially austere environments will be a significant logistics evolution. Supply will be directly impacted by supply chain issues for products produced outside the United States. Demand for new maritime platforms to support the medical mission will need to be addressed and budgeted.

**Sociocultural Issues:** These can have an impact depending upon the area of operation in which medical care is being provided. Understanding cultural norms for land-based operations will be essential. Additionally, within the Navy medical community, it may be necessary to broaden one's job description and skillset. Understanding how that will be socialized within the Navy will be vital to providing individuals with the appropriate support for optimal patient outcomes. Recruitment and retention of highly skilled service members is an ongoing issue in our all-volunteer military. Competition with civilian positions, especially within the medical corps, will need to be addressed in some meaningful way.

**Technology:** Improvements in medical technology, artificial intelligence, and machine learning will have a deep impact in allowing us to address far-forward resuscitative and surgical care. Improvements in blood banking technology and the advent of shelf-storable blood substitutes will probably have the biggest impact on providing resuscitative care close to the point of injury. Cybersecurity will be a limiting factor in utilizing advanced technology for medical care. Mitigation strategies will be necessary for both cybersecurity and, in the situation where communication is lost, for sustainability of ongoing patient care. Demand for technological development will originate from the requirements incurred by operating from atypical platforms and environments requiring advanced medical care. The other impact of technology would include the evolution of new weaponry with effects still to be understood.

#### Critical Uncertainties

Many variables can influence the direction of combat casualty care for the next conflict. Over the past twenty years, the U.S. military has provided state-of-the-art trauma care in a land-based conflict, resulting in the development of a highly functioning trauma system. The mandate from the Secretary of Defense requiring access to surgical care within 60 minutes (the Golden Hour) nurtured an environment requiring high numbers of tactically distributed medical providers and the necessary support to achieve this benchmark. The patient outcomes demonstrate the effectiveness in which there was an unprecedented 94 percent survival rate if a wounded service member made it to surgical care within an hour of injury. Limiting the U.S. strategy to similar scenarios would be shortsighted. The top two trends that would likely have the biggest impact would be location of conflict (land vs. sea-based) and illness type (trauma vs non-trauma). Graphically, this might be represented as follows:

Non-Trauma illness would include all pathologies that would not require initial surgical care as a life-saving measure. This could include infectious diseases, including pandemics, chemical and radiation exposures, and other illness that would impact the war-fighting effort. Trauma, including burns, are injuries caused by kinetic activity. Beyond the current thinking this would include injury caused by new weaponry including directed energy weapons and other advanced technologies. As for location, a sea-based conflict would be burdened by time and space, what is now termed distributed maritime operations. In these situations, there may be access to land-based resources but these may be limited by control of sea lanes and cooperation from foreign governments. As one moves from one quadrant to the next, the



demands for medical care can change drastically. It will be necessary in the future to incorporate non-traditional approaches to providing medical care while maintain the highest standards for quality. This will require leaders to think strategically and outside-the-box to develop solutions for complex patient care and environmental issues.

#### Plausible Scenarios

**Land-Based/Non-trauma:** The illness complex in this scenario is potentially vast and has the potential to deal with illnesses that we know little or nothing about. A pandemic or other highly communicative disease intersecting with a land-based war would be challenging. In highly contagious diseases, the transmission rate could produce hundreds of patients in a short time. Additionally, if this is an unknown pathogen issue related to treatments and protection of healthcare providers is amplified. High patient volumes would preclude evacuation and would require prolonged care at the epicenter of the outbreak.

Similarly, in a chemical or radiation event, issues related to healthcare provider access and evacuation concerns would be paramount. In any disease state that would require critical care treatments, including mechanical ventilation, continuous infusion medications, or organ support technology (i.e., dialysis), equipment and supply issues would pose a logistics concern. Finally, ethical decisions regarding withholding care would be required to do the greatest good for the greatest number.

**Land-Based/Trauma:** This scenario is the most familiar to healthcare providers and leaders, as this represents a situation we have effectively dealt with over the past two decades in Afghanistan and Iraq. In that conflict, Navy Medicine was able to participate in a highly functional joint services trauma system that resembles CONUS civilian trauma system. Patient care was driven by evidence-based medicine, outcomes were tracked, and performance improvement was incorporated. The variable that permitted such a highly functioning system was air superiority. What if there was no control of the air? How would our approach to similar injuries differ? Evacuation times would be prolonged, and demands for prolonged care would be required at both role-2 and 3 facilities. The resupply of materials, including medications and blood, would be challenging. Specialized care, typically provided CONUS during the last conflict, would not be readily available because of extended evacuation times.

**Sea-Based/Non-trauma:** In a sea-based scenario, the issues of space and time become major influences in decision-making. Furthermore, if the disease process originates on a naval vessel, all levels of care are determined by the type of vessel and the organic medical capabilities. In the case of a carrier, the medical resources are limited for the population it serves. Although the carrier strike group has a more robust capability, evacuating critically ill patients may not be possible. In fact, evacuation may not be wise, as this may spread the disease across vessels. If the United States and its Allies are not in control of the sea lanes, then evacuation becomes even more complicated. The issues of patient volume, equipment, and ethics, as in the land-based scenario, are mirrored here but become complicated by time/space and control of the air and sea.

**Sea-Based/Trauma:** The U.S. Navy has not had to confront sustained mass casualties at sea since WWII. The complexity of dealing with a large volume of severely injured patients in a maritime setting is unique and amplified by the issues of time and distance. Shipboard capabilities vary by platform, and medical expertise may be limited or nonexistent. The challenges of limited supply, medications, and blood further complicate the care of the injured. The organic medical capabilities of the ship may be destroyed by the attack. The damage to the ship will influence holding and evacuation capabilities. Finally, control of sea line and air will greatly influence the delivery of care and the evacuation of the injured.

#### Implications and Paths

On review of the possible scenarios, several unifying themes start to emerge to address some of the current limitations for the United States. The recommendations allow leaders and front-line workers to consider the way forward for innovation. First, if one considers the issues of the inability to evacuate patients several nodes can be addressed to impact both. The U.S. military medical community needs to utilize providers, beyond physicians, outside their usual job descriptions. This would allow force multiplication to impact many patients in a wide geographic space. The magnitude and effectiveness of enlisted personnel provide a powerful, often under-utilized, workforce that would allow for the delivery of time sensitive, lifesaving interventions in a dispersed environment.





This can only be possible by leveraging technology to improve patient care. Technological innovation can address many of the areas of concern in this discussion. Specifically, telehealth capabilities need to be expanded and applied across the continuum of patient care. Integral to the exploitation of telehealth is to assure adequate cyber security. Although technology may allow the force multiplication in a dispersed environment, consideration for the potential negative effects must be considered. Issues related to the technology itself, such as latency or disconnect must be considered; and the potential issues with the end users, such as failure to recognize complications or the inability to continually monitor a patient following intervention. Some of these negative effects may be mitigated by investment in innovative diagnostic and therapeutic modalities will permit far-forward advanced patient care. These innovations must include artificial intelligence and machine learning to assist caregivers with diagnoses and decision-making. To address issues of resupply, investment in unmanned vehicles, both land, and sea-based, for the specific purpose of resupply and equipment delivery needs to be made. Exploring more capabilities of 3-D and advanced printing can also address some of the resupply concerns.

The issue of prolonged field care touches on all four quadrants of our scenario. Again, leveraging technology for telehealth, innovation in diagnostics and therapeutics, and artificial intelligence to assist caregivers are vital in assuring optimal outcomes. Congruently, novel ideas for patient transport will need to be addressed. New concepts of maritime-based vehicles allowing for transport while advanced and critical care is provided to patients will be necessary. Medically, we will need to explore ideas of “suspended animation” to allow time to be effectively slowed for the patient thereby mitigating the effects of delayed access to specialty care.

Finally, all the scenarios presented pose ethical concerns if we use the experience from our last conflict as our benchmark. For the past two decades, we achieved an unparalleled survival rate. This success may not be achieved in our next conflict. As such, we believe it will be necessary to address the ethics of these potential scenarios. We will need thought leaders to address concerns and provide guidance in limiting medical care. We will need to understand the “breakpoint” between patient salvage and provider safety and redefine the concepts of futility with large-scale illness or injury.

#### Conclusion

Navy Medicine is likely to face numerous challenges in future conflicts. The framework provided here should enable further discussion of planning for medical care for future conflicts beyond that of a near peer confrontation in the USINDOPACOM area of operations. Although many of the unifying features of all the scenarios are applicable to this focus, more opportunities arise from the discussion of non-trauma scenarios and conflicts without control of the air or sea. Benefits of exploring in this way include addressing potential blind spots by listening to and incorporating critical thinking and input from expertise outside medicine (engineering, economics, education, industrial psychology); this will be the necessary for the successful response of Navy Medicine and Joint Medical Forces to future conflicts.

Authors’ note: This article resulted from a group project for **Naval Postgraduate School** course GB3400: Critical Thinking for Strategic Leadership. The course is centered on students developing their critical and strategic thinking skills, and to better understand how to use critical thinking as a tool for strategic leadership in and of organizations and its importance for national security.

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[Adapting Navy Medicine for Future Warfighting: Scenario Thinking for Combat Casualty Care | Center for International Maritime Security \(cimsec.org\)](#)



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## FACULTY:

### **Balloon Fiasco Suggests Disarray in Beijing**

*(Newser 6 Feb 23) ... John Johnson*

*(EuroNews 6 Feb 23)*

After a US spy plane collided with a Chinese jet fighter over China's Hainan Island more than 20 years ago, the two nations set up hotlines and promised better communications, writes David Sanger in a New York Times analysis. Last week's bizarre balloon story illustrates a failure on that front. "The fact that Chinese officials, realizing that the balloon had been spotted, did not call to work out a way to deal with it was revealing," writes Sanger. It also suggests that China's own intelligence network isn't communicating with its nation's civilian leadership, he adds. For the record, China continues to insist the balloon was a weather balloon, though the US says it was for surveillance. US authorities continue to search the Atlantic for debris that could settle the issue after shooting down the balloon on Saturday.

More:

Misplay by Xi? Another analysis at the BBC suggests China badly misplayed the situation. Xi Jinping, smarting from his "sudden and embarrassing" reversal on COVID policies amid widespread protests, could have used the diplomatic boost from the now-scuttled visit by US Secretary of State Antony Blinken, writes Stephen McDonnell. Some think the deployment of the balloon was a deliberate, provocative move by Beijing to challenge President Biden, but McDonnell disagrees. "When you consider the damage it has done in terms of derailing a visit that the Chinese government, right up to the very top, wanted to happen, it is hard to see how this analysis stacks up," he writes.

A prediction: China had no choice but to respond forcefully in public to save face, according to a Reuters story quoting analysts. But most agree it will blow over. "I'd expect they'd protest moderately but hope to sweep this under the rug and reinstate progress on senior-level visits within months," says Christopher Twomey of the US **Naval Postgraduate School** in California. A survey of China's social media suggests that people in China were largely shrugging off the incident, rather than getting angry over the US decision to destroy the balloon.

[Balloon Fiasco Suggests Disarray in Beijing \(newser.com\)](#)

[China has reasons to keep cool after U.S. downs suspected spy balloon | Euronews](#)

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### **Vengeance, Virtue and “Who We Are” | Bill Whalen and Zachary Shore | Hoover Institution [Audio Interview]**

*(Ricochet 10 Feb 23)*

A look back at wartime moral dilemmas confronting America's "greatest generation" – dropping atomic bombs, interning Japanese-Americans, whether to starve Axis populations – all raise questions concerning how present-day leaders will confront crises. Zachary Shore, a Hoover Institution national security fellow and **Naval Postgraduate School** professor, discusses lessons learned from World War II and the fine art of understanding enemies especially when dealing with the likes of Vladimir Putin and Xi Jinping.

[Vengeance, Virtue and “Who We Are” | Bill Whalen and Zachary Shore | Hoover Institution | Ricochet](#)

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## International Campaign Explores Missile Defense Solutions

*(MilitarySpot 14 Feb 23)*

Twenty-two nations from North America, Indo-Pacific, Europe, and the Middle East, along with three international organizations gathered in Monterey, Calif., Dec. 11-18 to collaborate on Nimble Titan 24, a premier integrated air and missile defense campaign of experimentation.

U.S. Strategic Command's Joint Functional Component Command for Integrated Missile Defense hosted the event and provided a unique forum for allied and partner nations to explore strategies and policy implications for collective missile defense solutions.

Nimble Titan provides a globally integrated scenario, set within a notional 10-year future timeline that allows members to experiment in an unclassified and non-attributional environment. During this event, participants executed a series of interactive table-top experiments with embedded seminars to simulate global competition in an integrated air and missile defense environment.

Through this construct, members experimented with missile defense policy frameworks including non-military instruments of power to address an ever growing and complex series of threats.

Allies and partners had the opportunity to build relationships within and across regions, explore decision-making processes, and examine deterrence options and responses.

The event opened with a keynote speech by Dr. James Wirtz, professor of National Security Affairs from the **Naval Postgraduate School**.

Wirtz provided an engaging perspective on two important components of deterrence; capability and credibility, while reinforcing the importance of Allies and partner nations executing war-games.

Wirtz further emphasized the value of Nimble Titan stating, "Nimble Titan demonstrates to friends and foes alike that the dozens of nations represented here today take our national and collective missile defense policies seriously.

Nimble Titan does more than bolster our capabilities; it enhances the credibility of our national and collective deterrent postures in the realm of contemporary missile defense."

Graham Longley-Brown, a lead author of the U.K. Ministry of Defense's Wargaming Handbook participated in this competition event as a facilitator and noted the uncommon nature of this event and the overall importance of Nimble Titan.

"This was my first Nimble Titan execution event," he said. "It was excellent from start to finish in all respects: the wargame construct, the analytical approach and data capture and, above all, the player engagement. I will take away many exemplars of how a wargame should be designed and delivered." Longley said, "Professor Wirtz, the keynote speaker, was excellent. His point that Nimble Titan not only develops much needed integrated air and missile defense capability, but also delivers a real-world influence effect, was particularly pertinent. Nimble Titan is unique, and its deterrent and reassurance effect at the strategic level is significant."

As rogue actors across the globe continue to develop, acquire and employ a wide variety of air and missile threats, Nimble Titan serves as a premier air and missile defense forum for Allies and partners to demonstrate the value of partnership, integration, and development of policy considerations and potential solutions to address future threats.

[International Campaign Explores Missile Defense Solutions - MilitarySpot.com](#)

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## How Much Is US Aid to Ukraine Costing You?

(Anti War 18 Feb 23) ... David R. Henderson

In 2022, the U.S. government approved expenditures of \$113 billion on aid to Ukraine. The Committee for a Responsible Federal Budget writes:

In total, CBO estimated that \$6.6 billion of the \$113 billion would be spent in FY 2022 and another \$37.7 billion in FY 2023. Furthermore, CBO estimated more than half of the approved funds would be spent by the end of FY 2024 and more than three-fourths by the end of FY 2026.

How much will that cost the average household? There are approximately 131.2 million households in the United States. So the average cost per household is \$113 billion divided by 131.2 million, which is \$861.

Of course, averages are often under-informative. That's true of this one. In 2018, according to the Brookings Institute, high-income households, those in the top 20% of the income distribution, paid about 68 percent of all the tax revenue that the federal government collected. To be in the top quintile that year, you needed to have an income of \$153,301 or more.

Assume for simplicity that these numbers, adjusted for inflation, are about the same today. Also, I'll assume, even though I know it's false, that this \$113 billion will be paid entirely out of taxes rather than new debt. It's not as bad an assumption as it looks. To the extent it's paid out of new debt and to the extent future taxes pay off that debt, based on a progressive tax structure such as the one we have now, it would be a pretty good assumption.

So the top quintile would pay 68% of \$113 billion, which is \$76.8 billion. There are approximately 26 million households in the top quintile. So the cost per top-quintile household is \$76.8 billion divided by 26 million, which is \$2,956.

That's a lot to fight someone else's war.

Consider my wife's and my case. In 2018, our income put us in the top quintile, probably just below the top 10 percent. So because we aren't socked by high income tax rates to the same extent as the top 10 percent, our cost is probably closer to \$2,000 than to \$2,956. Let's say it's about \$2,200.

Put it in perspective this way. In the first month of the war, my wife and I wanted to "do something" to help Ukrainians. A friend recommended giving money to a local restaurant owner who has relatives in Ukraine. She trusts him and we trust her. So we gave him \$100. I know that that's not much, but the \$2,200 number above gives an idea of just how "not much." We'll pay in federal tax revenues about 22 times the amount we contributed voluntarily.

David R. Henderson is a research fellow with the Hoover Institution and an emeritus professor of economics in the Graduate School of Business and Public Policy at the **Naval Postgraduate School**. He is author of *The Joy of Freedom: An Economist's Odyssey* and co-author, with Charles L. Hooper, of *Making Great Decisions in Business and Life* (Chicago Park Press). His latest book is *The Concise Encyclopedia of Economics* (Liberty Fund, 2008). He has appeared on *The O'Reilly Factor*, the *Jim Lehrer Newshour*, CNN, MSNBC, RT, Fox Business Channel, and C-SPAN. He has had over 100 articles published in *Fortune*, the *Wall Street Journal*, *Red Herring*, *Barron's*, *National Review*, *Reason*, the *Los Angeles Times*, *USA Today*, *The Hill*, and the *Christian Science Monitor*. He has also testified before the House Ways and Means Committee, the Senate Armed Services Committee, and the Senate Committee on Labor and Human Resources. He blogs at <http://econlog.econlib.org>.

[How Much Is US Aid to Ukraine Costing You? - Antiwar.com Original](#)

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## ALUMNI:

### County Hires Public Safety Director

*(Brunswick News 8 Feb 23)* ... Michael Hall

Glynn County has a new public safety director.

Scott Ebner will assume the role in March after accumulating more than 30 years of law enforcement experience in New Jersey and Florida.

“We were looking to fill the director of Public Safety vacancy with someone who could come in and help Glynn County at the executive level,” Glynn County Manager William Fallon said in a Tuesday release announcing Ebner’s hiring. “...This will help Glynn County improve public safety across the board. I believe Mr. Ebner has the experience, education, and leadership skills to do everything we need from this position.”

Ebner’s salary will be \$130,000 annually, said Glynn County Communications Director Katie Baasen.

Ebner was with the New Jersey State Police for 27 years, serving in the investigations branch, internal affairs, as a regional commander and a chief of staff. Most recently he served as deputy superintendent of the administrative branch.

Prior to working in New Jersey, Ebner was a police officer in Cape Coral, Florida.

He holds a master’s degree in human resource management and a bachelor’s degree in criminal justice from Seton Hall University.

Ebner has also been through training stints at the FBI National Academy and the **Naval Postgraduate School** Executive Leaders Program and is certified by the New Jersey State Police Academy and the Southwest Florida Criminal Justice Academy.

The public safety director position was created in 2015 to oversee public safety operations countywide.

As Glynn County’s Public Safety Director, Ebner will be responsible for overseeing operations of the Glynn County Police Department and Fire Department, Glynn County Animal Control, and Glynn County Emergency Management Services.

He will also be responsible for strategic planning related to public safety, managing departmental budgets and compliance, formulating policies and procedures, monitoring and assessing performance of departmental programs, and responding to inquiries and complaints by citizens and outside agencies.

“My expectations for this position are to help with policy and procedures, recruiting and retention in all public safety departments, obtaining and maintaining accreditation and certifications at both GCPD and Glynn County Fire and Rescue, and helping with the timely execution of the three SPLOST projects — the Emergency Operations Center and two Fire Stations,” Fallon said in the release.

[County hires public safety director | Local News | thebrunswicknews.com](#)

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### Roy Bridges, Mark Kelly To Be Inducted Into Astronaut Hall Of Fame

*(AV Web 6 Feb 23)* ... Kate O’Connor

Former NASA astronauts Roy Bridges and Mark Kelly will be inducted into the U.S. Astronaut Hall of Fame as its class of 2023. A retired U.S. Air Force Major General, Bridges piloted the Space Shuttle Challenger for the STS-51F mission in July 1985 and served as director of NASA’s John F. Kennedy Space Center from 1997 to 2003. He holds a bachelor’s degree in engineering science from the U.S. Air Force Academy and a master’s degree in astronautics from Purdue University. Bridges has logged 4,460 hours in aircraft including the F-100, F-104, YA/A-10, A-37, C-11, F-15, T-37 and T-38.

Currently a senator for Arizona, U.S. Navy combat pilot Mark Kelly was selected as an astronaut in 1996 alongside his identical twin brother, Scott. Kelly has gone to space four times on missions STS-108, STS-121, STS-124 and STS-134. He has logged more than 5,000 flight hours in over 50 types of aircraft



and flew 39 combat missions in Operation Desert Storm. Kelly holds a bachelor's degree in marine engineering and nautical science from the U.S. Merchant Marine Academy and a master's degree in aeronautical engineering from the U.S. **Naval Postgraduate School**.

"The Hall of Fame has inducted 105 individuals with this honor; this year's nominees are perfect examples of the accomplished individuals who are inducted each year," said Curt Brown, board chairman of the Astronaut Scholarship Foundation. "Both Kelly and Bridges represent the committed spirit of exploration, bravery and teamwork that make our space program a continued success."

The official induction ceremony for the U.S. Astronaut Hall of Fame class of 2023 is scheduled to take place at Florida's Kennedy Space Center Visitor Complex on May 6.

[Roy Bridges, Mark Kelly To Be Inducted Into Astronaut Hall Of Fame - AVweb](#)

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## **Commander Joseph St. Michael Hamilton assumed command of the USS Porter**

*(Walter Boro Live 10 Feb 23)*

Commander Joseph St. Michael Hamilton assumed command of the USS Porter (DDG 78) at Norfolk Naval Station in Virginia. A 2001 graduate of Colleton County High School, Hamilton was a member in the NJROTC program, the National Honor Society, and the Band of Blue. CDR Hamilton is a 2005 graduate of the Naval Reserve Officer Training Corps from the Citadel Military College, earning a Bachelor of Science degree in Computer Science.

A career Surface Warfare Officer, CDR Hamilton's shipboard assignments include service aboard the USS Philippine Sea (CG 58) as Operations Information Division Officer, Antisubmarine Warfare Officer, and Navigator. Then service aboard USS Russell (DDG 59) as Operations Officer, and USS Patriot (MCM 7) as Executive Officer and Commanding Officer. CDR Hamilton further pursuits while ashore include earning a Master of Business Administration with a concentration in Financial Management and Joint Professional Military Education from the **Naval Postgraduate School**. CDR Hamilton also had the following tours: Flag Aide to the Commander, Navy Region Midwest, served on the Chief of Naval Operations Staff (OPNAV) as an analyst for the Programming Division (N80), and following service as Deputy Executive Assistant to the Deputy Chief of Naval Operations for Fleet Readiness and Logistics (OPNAV N4). Most recently, Hamilton served as Executive Officer of USS Porter (DDG 78).

CDR Hamilton's decorations include the Meritorious Service Medal, Navy and Marine Corps Commendation Medal, Navy and Marine Corps Achievement Medal, and other campaign awards.

Hailing from Green Pond, CDR Hamilton is married to the former Leah J. Wimberly and have two sons, Emory Joseph, and Ellison Michael. CDR Hamilton is the son of Joe and Blanche Reid Hamilton.

[Commander Joseph St. Michael Hamilton assumed command of the USS Porter | Walterboro Live](#)

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## **Brownsville native to head Border Patrol Rio Grande Valley Sector**

*(Yahoo News! 10 Feb 23) ... Laura B. Martinez*

Not only has she returned to her hometown of Brownsville after being gone for 27 years, but she is also now the chief of the Rio Grande Valley Sector of the U.S. Border Patrol.

The Border Patrol Friday held a Change of Command Ceremony officially transferring the authority and responsibility of the RGV Sector of the Border Patrol to Chavez. This was the first such ceremony held in Brownsville.

Chavez, a Brownsville native, graduated from Gladys Porter High School and attended Texas Southmost College before moving to Corpus Christi to begin her law enforcement career with the Nueces County Sheriff's Office and then the Taft Police Department.



Raul L. Ortiz, chief of the entire U.S. Border Patrol, transferred the authority of the RGV Sector to Chavez during the passing of the Guidon which is a flag that identifies a company, troop, or organization. Green and gold streamers that represent each of the 20 operational sectors of the Border Patrol surround the Border Patrol guidon.

Chief Chavez was extremely excited to receive the RGV Sector Patrol organizational streamer saying "Rio Grande Valley do you know how much work it took me to get this streamer, all my work, it took 27 years to get me the streamer here; hell yeah."

Although her family members, Ortiz and other federal, state, local dignitaries and stakeholders attended the event held at the Texas Southmost College Performing Arts Center, one person who wasn't there was her mother San Juanita Chavez, who was looking down from heaven.

San Juanita passed away Oct. 16, 2022, about three months before Chief Chavez was to head the RGV Sector that has about 3,200 agents and covers over 316 border miles, 317 costal miles and 34 counties equating to more than 34,000 square miles.

Chief Chavez dedicated Friday's ceremony to her mother thanking her for her guidance, as she was growing up. Trying to contain her emotions — Chief Chavez had practiced her acceptance speech 14 times she said — she spoke of her mother and how grateful she was to her.

"Mommy is here with us in spirit. She is smiling, she is so very proud of me, as she always said that she was, but little did Mommy know though that the woman I am today is all due because of who she was in my life and the strength and courage and love that I learned from her," Chief Chavez said.

She dedicated Friday's ceremony to her mother saying "I love you mommy and I will always love you."

Chavez takes over as the 18th Chief Patrol Agent of the RGV Sector after previously serving as chief patrol agent of the El Paso Sector.

She has 27 years of border security and law-enforcement experience. Her experience and knowledge will prove vital as RGV continues to be among the busiest sectors along the southwest border.

Chavez began her Border Patrol career at Imperial Beach Station in the San Diego Sector. She continued her secondary education and completed her bachelor's degree in Criminal Justice Administration. She achieved her master's degree in Homeland Security Studies at the **Naval Postgraduate School** in 2015.

[Brownsville native to head Border Patrol Rio Grande Valley Sector \(yahoo.com\)](https://www.yahoo.com/news/brownsville-native-to-head-border-patrol-rio-grande-valley-sector-120000000.html)

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## **The Bind Spot: How a Gap in Climate Security Strategy Leads to Opportunities for Maligned Actors in Strategic Competition**

*(Small Wars Journal 13 Feb 23)* ... Major Alexander Kenna and Major Matthew Alexander

As the US military continues to develop its climate security strategy and action plans, the current publications and programs only briefly mention proactive international actions by enhancing disaster relief and humanitarian assistance efforts. However, this approach is not a sufficient response to the complexity of climate insecurity. The current lines of effort for the DOD Climate Adaptation Plan would benefit from an additional measure that is proactive and international at its base.

The oversight of the near-term consequences of destructive climate events such as drought, flooding, rising sea levels, etc., resulting in resource scarcity for vulnerable populations has allowed adversaries of the United States to capitalize on these vulnerable states. This allows these maligned actors access economic, military, and political advantages through providing resources and infrastructure to these fragile populations. While the United States needs to focus first domestically, neglecting international efforts to combat climate insecurity will only further the loss in adversarial competition while endangering US national security.



Through three case studies, we have found that destructive climate events may not be the direct cause of instability; however, they can serve as a threat multiplier that exacerbates underlying vulnerabilities and facilitates insecurity. Climate insecurity has a strategic role worldwide that can increase the chances of competition. Climate security creates a field for the United States to advance influence and compete with adversaries by building and strengthening partnerships while discrediting its competitors.

This oversight in strategy and the evidence of its consequences are demonstrated in three regions of the world: The Syrian drought and the rise of ISIL, state and non-state actors taking advantage of Central America, and China expanding its reach in the Pacific. These three regions represent third-party actors competing for the influence of smaller governments for strategic gains, and the United States has or is currently falling short.

#### Syria: The Boiling Point

In Syria, an extreme drought gave the momentum for ISIL to cause regional instability and promote its goals of a global caliphate. The drought of the fertile crescent from 2006–2011 exacerbated the vulnerabilities of a low-threshold Syrian population while revealing the low-capacity government of the Assad regime, leading to civil war and the eventual rise of ISIL. Before the drought and the mass exodus of people toward urban centers, poverty, and water scarcity were already pervasive within Syrian society, as employment and essential services were scarce. The drought further exposed the Syrian government's inability to support its population, heightening grievances and resulting in significant migration not only in the middle east but throughout Europe. Accordingly, ISIL was able to capitalize on these grievances and use them as a base for recruitment, leading to an expanded presence that challenged governments in Syria and Iraq and whose effects are felt globally. Ultimately, this regional impact attracted the involvement of global powers such as Russia and the United States, who became involved with competing agendas and remain so today with no foreseeable end in sight.

#### Central America: The Rock in a Hard Place

Central American climate insecurity leaves opportunities for state and non-state actors to exploit the western hemisphere while threatening the US southern border. In the region, specifically the northern triangle with Nicaragua, climate insecurity issues are caused two-fold by the dry corridor to the west and hurricanes to the east. In combination, these factors degrade countries' resiliency while increasing instability. The region comprises developing countries with primarily agricultural economies and a history of civil wars and corruption. The low-capacity governments open the door of opportunity for state and non-state actors to increase their influence and legitimacy.

These climate events are also increasing in severity. The existing competition of control by transnational criminal organizations, such as MS-13 and other gangs and cartels, ultimately threatens US national security through the increase of decades-long perpetuated cycles of immigration of those attempting to escape the regional violence and now amplified with climate refugees.

Low-capacity governments looking for relief can be subjected to economic statecrafts, like the Chinese Belt and Road Initiative, when no other alternatives exist. The People's Republic of China already has 21 Latin American countries committed to the Belt and Road Initiative. Addressing the issues of mass migration through the US southern border by the US government has been primarily a reactive approach rather than proactive. Relations between Nicaragua and Russia have steadily grown, with authoritarian President Daniel Ortega receiving military equipment and training aid. Rivals of the United States can weaponize mass migrations by increasing instability.

#### The Emerging Challenges of the Pacific

China is expanding its reach in the Pacific by exploiting countries most susceptible to rising sea levels. To the world's surprise, China secretly signed a bilateral security agreement with the Solomon Islands in April 2022. The deal is the first known security pact between China and any nation in the Pacific. It allows China to send security personnel and base naval ships on the Solomon Islands. The security agreement comes when the Pacific finds itself amid strategic competition from heightened tensions between China and the United States. The agreement caught many off guard and is seen as a sign of China's growing influence and ability to undermine the United States on the global stage.

Pacific Island Countries, like the Solomons, find themselves at the center of strategic competition between China and the United States. Given their location, Pacific Island Countries represent the gateway





to Asia and play a pivotal role in movement across the Pacific. Seemingly neglected by great powers over the past decades, these islands are now embroiled in a contest for influence as tensions have recently heightened between the two nations. The small nation islands were left reeling from shutdowns during the COVID-19 pandemic, and their inability to diversify their economies has had consequential effects, rendering them vulnerable to external influence. The competition between China and the United States elevated during the Summer of 2022 as China seeks to sign security agreements and economic deals as part of the Belt and Road Initiative. The United States has pledged additional funding to the islands and reopened embassies to counter Beijing's strategy. As China and the United States are focused on thwarting each other's influence through security and economic agreements in the region, the Pacific Islands Nations remain steadfast that their primary concern is the threat of climate change.

These nations are susceptible to destructive climate events as most of their communities reside in low-lying areas. This susceptibility and other preexisting vulnerabilities leave the islands at significant risk. As a result, rising powers, such as China, can view an opportunity, such as climate insecurity, as a window of opportunity to leverage for strategic gains. Therefore, the United States must support and engage on issues deemed vital by the region while strengthening its objectives.

#### Defend Forward

Adversaries of the United States have been mastering the trade of influencing vulnerable states for years, and the United States is losing ground in the dynamic environment of strategic competition. Climate insecurity has become a shared threat across the world as an increase in global temperatures has and will continue to, lead to a rise in the number and strength of natural disasters, extreme weather events, floods, heatwaves, wildfires, warming oceans, severe drought, and rising sea levels. The threat of climate insecurity has been and will continue to be a point of leverage for state and non-state actors for malign regional influence. How will the United States respond? The 2022 National Security Strategy focuses heavily on global competition and the impact of climate instability, but never in conjunction. US climate insecurity defense efforts are focused primarily on domestic and operational resiliency and contributing to reducing greenhouse gases.

A Defend Forward effort, similar to US Cyber Command's, with a whole of government approach, would benefit the US in strategic competition and climate security efforts. For specific applications, the effort would collaborate with existing intelligence organizations and develop models to understand, identify, and prioritize efforts at the national level. Delegation of planning and action would be given to each Geographic Combatant Command, working closely with climate security experts. USAFRICOM has already taken the initial steps by addressing climate security issues for the continent at a symposium in February 2022.

Additionally, tactical assessments and engagements of prioritized areas can be executed by existing mobile forces with an enduring global presence once identified. For instance, the US Army Civil Affairs, which specializes in understanding, engaging, and impacting the civil domain, along with other Special Operations Forces, could be mobilized before the execution of planning and funding of projects. The Defend Forward effort could be financed through existing programs focusing on climate security, such as the Build Back Better World Initiative and the PREPARE Action Plan. The tools exist to resolve regional climate insecurity issues that threaten US national security and exacerbate competition. A Defend Forward line of effort can mitigate regional instability and close the door of opportunity for maligned actors created by climate insecurity.

#### About the Author(s)

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## **Aggressive Deterrence Requires a Sharp Sword**

*(USNI 14 Feb 23)* ... Lieutenant Commander Trevor DiMarco, U.S. Navy

In late January, Air Force General Michael Minihan, commander of the Air Force's Air Mobility Command, ordered his personnel to accelerate preparations for war with China. The ensuing debate about the general's controversial prediction of war in 2025 and his direction to "aim for the head" at the pistol range distracted from an urgent need for combat readiness. Many military personnel view themselves as technical or administrative specialists removed from the brutality of war. Frank discussion of violence makes them uncomfortable. Yet, this squeamish perspective detracts from the military's principal purpose of deterring or, if necessary, winning a war. Service members must embrace their role in combat to prevent conflict and respond to attacks.

Deterrence is not an agreement—it is a threat. Deterrence relies on the credible promise of unendurable violence. Russian President Vladimir Putin must believe that an attack on Poland would provoke NATO to decimate Russian forces. North Korean leader Kim Jong Un must know that launching a nuclear weapon into South Korea precipitates his death and the destruction of his government. Chinese President Xi Jinping must fear that an attack on U.S. interests ends with his fleet at the bottom of the ocean. Acknowledging the aggressive nature of deterrence does not require predicting inevitable war, but it demands a military that is technically, physically, and mentally prepared for combat.

A major conflict will not distinguish between combatants and support personnel. Modern combat will stretch rapidly across the globe and into space and cyberspace. Units and people far from the battle lines will see their operations and safety threatened. General Minihan's cargo aircraft personnel may find the enemy sabotages their maintenance, disrupts their communications, and attacks their flight lines thousands of miles from the invasion beaches. Even in much smaller conflicts, violence can arrive unannounced. In October 2000, the USS Cole (DDG-67) was refueling in Aden Harbor, Yemen, with an insufficient force protection posture set. As a small boat maneuvered alongside, the men on board smiled and waved. Those men then detonated an explosive that blew a 32-foot-wide hole in the Cole, killing 17 of her crew.

Understanding these risks imparts a healthy sense of urgency. A ship deploying without a working self-defense system is not just an annoyance; it is a risk worth the effort to fix. An exercise with allies is not just political theater; it is an opportunity to ensure they can track a submarine that might otherwise sink an aircraft carrier. Aggressively improving minor capabilities builds credible deterrence. In today's threat environment, that is an effort that cannot wait.

The same urgency applies to psychological readiness. History offers countless studies of combatants so mentally unprepared for violence that they fought and often died without employing perfectly functional weapons. An examination of World War II estimates that only 25 percent of frontline troops attempted to kill the enemy in combat. This deficiency held even for seasoned units and technical engagements. A study of an F-86 Sabre squadron in the Korean War showed that just 50 percent of pilots fired their cannons in combat, and a meager 10 percent ever hit anything. Aversion to violence robbed these forces of most of their firepower. Credible combat readiness demands countering this aversion with a force mentally prepared for violence.

In *On Combat: The Psychology and Physiology of Deadly Conflict in War and in Peace*, Lieutenant Colonel Dave Grossman identifies several psychological weapons that improve effectiveness in combat, including leadership, group cohesion, and mental conditioning. Aggressive leaders are role models of competence and composure under fire. They wield the moral authority to exhort and steady their



subordinates in periods of chaos. Group cohesion motivates peers to improve individual performance. A cohesive team fights according to clear lines of responsibility. Members see each other performing their respective roles, and they execute their individual tasks to protect the team. Mental conditioning inoculates troops against the stress of combat and psychologically automates skills. Simulators offer a prime example of how realistic training mentally conditions warfighters. A pilot firing a missile in combat has practiced thousands of iterations in a simulator. Fear and apprehension fade behind executing conditioned procedures to designate and track targets and launch weapons. Employing these psychological weapons can transform victims into warriors.

To build a credible, aggressive deterrent force, military officers must apply the principles of leadership, group cohesion, and mental conditioning in three lines of effort:

Sharpen your sword. Seize every opportunity to hone your tactical knowledge and decision-making. Refuse to accept mediocre training and apathetic support. Think about what war may demand of you and how you will meet those challenges.

Harden your troops. Speak frankly to your teams about combat. Discuss your unit's role and its vulnerabilities. Find ways to teach the skills and instill the toughness required to fight and win in a conflict. Assign individual expectations that personalize a member's role in survival and victory.

Embrace risk. Preparing for combat means intelligently accepting risk. Training for expeditionary operations may risk temporarily stranding an aircraft. Combining damage-control drills with a live fire requires a commanding officer to delegate authority to his or her subordinates. "Crawl, walk, run" is only a sound strategy if you have a plan to start sprinting. Accepting risks improves training scenarios and teaches leaders to manage risk in combat.

This approach embraces combat readiness across the force and reinforces General Minihan's underlying message. Violence may arrive without warning and reach people who thought themselves safe. Effectively deterring conflict requires urgently building all units' technical, physical, and mental warfighting capabilities. The best way to prevent war is to prepare as if it will start tonight.

Lieutenant Commander DiMarco is an EA-18G Growler pilot and tactics instructor. His previous projects include expeditionary countersurveillance and targeting, standardizing joint maritime strike kill chains, and implementing speed to the fleet acquisitions. He earned a master's degree from the **Naval Postgraduate School** and is currently a student at the Naval War College in Newport, Rhode Island.

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## **Los Angeles County Sheriff Robert Luna has created the Office of Constitutional Policing within the Sheriff's Department, and has appointed Eileen Decker as its Director**

*(LASD 15 Feb 23)*

The Office of Constitutional Policing will play an important role in eradicating deputy gangs from the Department, in collaboration with the Undersheriff, the Civilian Oversight Commission and Inspector General; in bringing the Department into compliance with consent decrees; and in improving policies, procedures, and operations to ensure the Department is engaging in constitutional practices.

"This is an incredible Department, but like any organization, we can always do better," said Sheriff Robert Luna. "The Office of Constitutional Policing will help our Department eradicate Deputy gangs, comply with consent decrees, and ensure our policies, procedures, and operations uphold people's constitutional rights. This Office is an important step forward in my promise to bring new leadership and accountability to the Sheriff's Department."

"I'm very pleased to appoint Eileen Decker as the Director of the Office of Constitutional Policing at the Sheriff's Department," Sheriff Luna said. "Director Decker is one of the top civilian law enforcement professionals in our country, and an accomplished attorney. She will bring invaluable leadership to our



office, and help us improve public safety and public trust in the Sheriff's Department."

Director Eileen Decker

"I'm honored to join the Sheriff's Department as the Director of the Office of Constitutional Policing," Director Eileen Decker said. "The employees of this department are talented and courageous, and I have the highest respect for their work to keep our communities safe. My career has been dedicated to public safety and public service, and this assignment is the culmination of my life's work. I want to thank Sheriff Luna for his confidence in me, and I'm looking forward to getting to work."

Decker was one of three co-chairs of Sheriff Luna's transition team. She recently helped oversee the Los Angeles Police Department as Vice President of the Los Angeles Police Commission, after previously serving as the Commission's President. She also was a lecturer at the USC Gould School of Law.

From 2015 until 2017, Decker served as the United States Attorney for the Central District of California. As the top federal prosecutor for Los Angeles County and six other Southern California counties, she oversaw the largest US Attorney's Office outside of the District of Columbia. She was appointed by President Barack Obama and unanimously confirmed by the United States Senate.

Prior to becoming the United States Attorney, Decker was the Deputy Mayor for Homeland Security and Public Safety for the City of Los Angeles for nearly six years, serving under Mayors Antonio Villaraigosa and Eric Garcetti. As Deputy Mayor, Ms. Decker was responsible for matters related to the Los Angeles Police Department, the Los Angeles Fire Department, and the Emergency Management Department.

Decker was an Assistant United States Attorney for almost 15 years, and served as the Office's first Chief of the National Security Section, Deputy Chief of the Organized Crime and Terrorism Section and as Deputy Chief of Organized Crime Strike Force.

Prior to becoming a federal prosecutor, Decker was in private practice for three years at the law firm of Gibson, Dunn & Crutcher in Los Angeles. She also served as a law clerk to United States District Judge Gary L. Taylor in the Central District of California.

Decker received her undergraduate and law degrees from New York University, a Master's Degree in Homeland Security Studies from the **Naval Postgraduate School** and was a Wasserstein Fellow at Harvard Law School. In addition, she is a Past President of the Women Lawyer's Association of Los Angeles.

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## **Army Get New Vice Chief, Two Top Commanders Soon- The New Indian Express**

*(Hunt Daily News 17 Feb 23)*

The Major change is on the horizon Indian Army's top echelons started rolling with the announcement of new Vice Chief You can find the Army Staff (VCOAS) & two Army Commanders. Lt Gen MV Suchindra Kumar At the moment, Deputy Chief This is Army Staff (Strategy) in the Army Headquarters, will be promoted up to the rank Army Commander As the new Vice Chief This is Army Staff.

In addition to the VCOAS the Indian Army The year 2009 will be marked by a rare event: Army Five new models will be added Commanders. Sources said the government has approved the promotion/appointment of senior Army Officers who are effective starting March 1, 2023.

The Present VCOAS Lt Gen Baggavalli Somashekar Raju Will assume the responsibility of Commander-in-Chief (C-in-C). South Western Army Commander. Lt Gen Amardeep Singh Bhinder currently serves as the C-in -C.



Lt Gen NSR Subramani At the moment, Chief This is Staff In Northern Command, will be promoted up to the rank Army Commander, and appointed the next Central Army Commander In Lucknow. Lt Gen Yogendra Dimri currently serves as the C-in -C.

A Commander In Chief (Cin-C), the chief of the armed forces, is an independent authority that can fight a conflict in the theatre. It also serves as the headquarters for the command function. The Next in line: Lt Gen SS Mahal (Army Training Command, Shimla), Lt Gen Nav K Khanduri (Western Command, Chandigarh) and last to superannuate will be Lt Gen Rana Pratap Kalita (Eastern Command, Kolkata) who will be retiring in December.

Chiefs This is Udhampur-based Northern Command, Lt Gen Upendra Dwivedi And Pune-based Southern Command Will continue to be at the helm. Lt Gen Raju Is an alumnus Sainik School Bijapur And National Defence Academy The 11th was the date of his commission. Battalion The Jat Regiment 15 December 1984. The General Officer Participated in all-important courses for career development India He is able to do his NDC at the pleasure of his family. Royal College This is Defence Studies, UK. He He also distinguished himself with his contributions. Masters programme in Counter Terrorism, at **Naval Postgraduate School**, Monterey, USA.

The Next Vice Chief Lt Gen MV Suchindra Kumar Currently, the Deputy Chief This is Army Staff (Strategy), Army Since 1995, Headquarters July 1, 2022 is an alumni of National Defence Academy, Khadakwasla. He Am commissioned to join 1 ASSAM Regiment In June 1985. The Officer has been present Defence Services Staff College, Wellington, Higher Command Course, Mhow The National Defence College, New Delhi.

[Army to get new Vice Chief, two top commanders soon- The New Indian Express \(huntdailynews.in\)](https://www.huntdailynews.in)

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## **(Radiological) War by Other Means: A Dirty Bomb in Ukraine?**

*(National Interest 16 Feb 23) ... Robert T. Wagner*

Fear is mightier than the sword, and few things stoke fear like a dirty bomb. So, it should have come as no surprise when Russia accused Ukraine of building a radiological dispersal device (RDD), possibly setting the stage for a false-flag attack. By manipulating widespread fear of radioactivity, such a device is a potent weapon of terror, and Russia has transformed it into an instrument of “war by other means.” To manage this, relevant chemical, biological, radiological, and nuclear (CBRN) doctrine must also shift to emphasize public information and crisis recovery.

### The Dirty Deed

It is no secret that Russia’s military strategy includes targeting Ukraine’s energy infrastructure, aiming to ensure this winter is taxing on the Ukrainian population. While such an effort is nothing new in warfare, the prevalence of nuclear power in Ukraine makes it unique—and dangerous. Heavy fighting has occurred near one of the country’s four operating nuclear power plants, with a missile reportedly landing close to another. This has raised the alarm among the international community; the effects of a nuclear meltdown could reach well beyond Ukraine’s borders, as was the case during the 1986 Chernobyl disaster. Consequently, Russia has been forced to become creative in targeting nuclear facilities.

In late October 2022, Russia claimed Ukraine was building a dirty bomb. A tweet by Russia’s Ministry of Foreign Affairs named Ukraine’s nuclear power plants and research reactors as the sources of the necessary radionuclides, stating Uranium-235 and Plutonium-239—the fissile isotopes of nuclear power—were the most likely ingredients. Although they make lousy ingredients for a dirty bomb when compared to Cobalt-60 and Strontium-90, which were also mentioned by the Ministry of Foreign Affairs, the fear was palpable on both sides. Ukraine and the West immediately counterclaimed that Russia was the true perpetrator, accusing them of contemplating a false-flag event that risked nuclear escalation. Meanwhile, Russian state media played up the potential consequences, and the surrounding countries braced for a radiological incident. Although it is inconclusive from open-source intelligence if Russia



truly intended to stage a false-flag attack, the threatened employment of an RDD to incite fear and achieve strategic military objectives was dastardly creative.

### A Frightfully Effective Weapon

Unlike a nuclear weapon, an RDD does not unleash the power of nuclear fusion or fission. Rather, it simply disperses radioactive material via a conventional explosive, thereby adding the complexity of contamination to an otherwise common problem. A potential attacker does not have to overcome the proliferation challenges of obtaining special nuclear material, much less mastering nuclear physics, to build such a device. Theoretically, all they need are radioactive sources and a bomb.

Rather than mass destruction, a dirty bomb primarily deals in fear. As the explosion spreads its contaminants, the once-concentrated radioactive material is dispersed over a comparatively wide space. This lowers the radioactivity within a given area, thereby lowering the dose rate for the exposed. Consequently, the resulting contamination is generally more of a long-term health risk than an immediate problem, with a few exceptions, such as particulates suspended in air. However, it is likely that an uneducated public would mischaracterize the risk, as just mentioning radioactivity can incite panic. This radiophobia persists across societies, making the dirty bomb a potent instrument of terror.

### (Radiological) War by Other Means

Because it lacks the power and complexity of a nuclear weapon, conventional wisdom says a dirty bomb is a poor man's weapon of mass destruction. Strategic powers like Russia, so the story goes, are only interested in high-yield nuclear devices, which are important for deterring their enemies. Even terrorists would prefer to possess an improvised nuclear device (IND), as the destructive power is many orders of magnitude higher. Such a scenario is the plot of Tom Clancy's *The Sum of All Fears*, in which terrorists detonate an IND to attempt to draw the United States and Russia into a nuclear war.

However, such dogma fails to account for the geopolitical and military shifts that have pushed warfighting into the liminal space. As revisionist powers like Russia have questioned their ability to defeat the West in a conventional fight, they have watched Western armies struggle with counterinsurgency operations in the Global War on Terror. Noting the successes of nonstate actors in this conflict, they have adapted irregular strategies into their military doctrine, including the weaponization of fear. This phenomenon is described by David Kilcullen in *The Dragons and the Snakes: How the Rest Learned to Fight the West*, who argues, "The snakes have learned to fight like dragons, and the dragons now fight like snakes." Therefore, as warfare has evolved into its fourth generation, it was only a matter of time before the threatened use of a dirty bomb was done in a strategic manner.

Of course, when it comes to radiological nightmares, Ukraine has history. Northern Ukraine was the site of the Chernobyl disaster, which resulted in approximately 30-50 prompt deaths (depending upon the source), hundreds of thousands of relocations, and lasting widespread contamination. This event has even been cited as a factor in the collapse of the Soviet Union, and it left an indelible mark on the population's memory. So, when it comes to radioactivity, the fear in Ukraine is visceral.

#### Managing the Mess

The evolution of the radiological dispersal device into a strategic weapon requires CBRN professionals around the world to reconceptualize this threat, particularly in terms of crisis management. While traditionally categorized as a weapon of mass destruction, a dirty bomb is really a weapon of fear. As such, the potential impacts are overwhelmingly psychological, economic, and political, as opposed to destructive, making them ideal for irregular warfare. Institutional knowledge should be amended to reflect this, particularly in the realms of public information and incident recovery.

On the matter of public information, strong messaging and education should be a priority, both left and right of boom. CBRN responders and security officials should develop robust messaging plans to combat radiophobia, which can paralyze a society. This requires intimate working relationships with public information experts, which should be fostered well ahead of an incident to ensure effective crisis communication. As information warfare grows in prevalence, this action will become increasingly important for all facets of CBRN consequence management.



As for recovery, it should be given significant attention as soon as possible during an RDD incident, as it will be vital to limiting the long-term social and economic effects. Out of fear, the public will be wary of any attempted cleanup, and they will demand it be complete. However, as those in the industry understand, completeness is generally a relative and elusive goal, and it can be very expensive. Therefore, in conjunction with public communication, recovery should be an early consideration.

## Conclusion

Fear is a weapon that can be employed strategically. Noting this, revisionist powers like Russia have adopted irregular strategies to fight the West. Since a radiological dispersal device plays upon mass radiophobia, it is ideal for this purpose. As such, it is not shocking that Russia claimed Ukraine was developing one, potentially in furtherance of their own false-flag event. To address this evolution of the dirty bomb into a weapon of “war by other means,” the CBRN community must prioritize public information and disaster recovery.

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