



# NPS IN THE NEWS

## Weekly Media Report – Oct 25 – Nov 7, 2022

*Further reproduction or distribution is subject to original copyright restrictions.*

---

### RESEARCH:

#### [NPS Professor Selected for ONR’s Young Investigator Program for Research Impacting Lasers at Sea](#)

*(Navy.mil 4 Nov 22)* ... MC2 James Norket

*(NPS.edu 4 Nov 22)* ... MC2 James Norket

Dr. David Ortiz-Suslow, a research assistant professor in the Naval Postgraduate School (NPS) Department of Meteorology, was one of 25 awardees selected for the Office of Naval Research’s (ONR) highly competitive Young Investigator Program (YIP). His research addresses a critical gap in the understanding and numerical representation of ocean wave impacts on the temperature and humidity structures in the lower atmosphere, critical for shipboard combat systems effectiveness.

### FACULTY:

#### [Guest Commentary: Cal Am Desal Not Like Doheny](#)

*(Monterey Herald 1 Nov 22)* ... Tom Moore

When the California Coastal Commission considers Cal Am’s proposed desal plant in November, it should also consider how it differs from the recently approved Doheny desal plant in Dana Point... Dr. Tom Moore is a professor at the **Naval Postgraduate School** and a director at Marina Coast Water District. This represents his personal opinion and not the opinion of the District.

#### [Sustaining the Fight for Women’s Rights in Iran as Repression Tightens](#)

*(Political Violence at a Glance 3 Nov 22)* ... Yu-Ping Change and Ghashia Kiyani

The death of 22-year-old Mahsa Amini, who died in custody after being detained for improperly wearing a hijab, ignited protests across Iran. Though the Iranian government blames foreign influence, the demonstrations are more diverse than any in Iran’s recent history. They include students, merchants, artists, athletes, business owners, and a range of ethnicities. Moreover, women have been at the forefront, demanding women’s rights, while taking off headscarves and cutting their hair... Yu-Ping Chang holds a doctoral degree in Security Studies from Kansas State University. Ghashia Kiyani is a Donald R. Beall Defense Fellow at the **Naval Postgraduate School** and a Visiting Assistant Professor at Western Illinois University.

### ALUMNI:

#### [Admiral Craig Faller Joins Viken Detection’s Board of Directors](#)

*(Business Wire 24 Oct 22)*

Viken Detection today announced that Admiral Craig Faller has been appointed to its board of directors... A graduate of the United States Naval Academy, Faller earned a bachelor’s degree in systems engineering and a master’s in national security affairs from the **Naval Postgraduate School**.



## **Brigadier General John Lubas, Deputy Commander, 101st Airborne Division**

*(Presidential Prayer Team 27 Oct 22)*

John W. Lubas was born in January 1975 in Princeton, New Jersey. He earned an undergraduate degree from Wake Forest University where he was a member of the Army ROTC. He also holds a Master of Science in Defense Analysis from the **Naval Postgraduate School** and a Master of Strategic Studies from the U.S. Army War College.

## **Webinar: The future of Public Safety Technology**

*(EMSI 26 Oct 22)*

Learn how technology will shape the future of public safety operations, based on results of the second annual Verizon Frontline Public Safety Communications survey... Chief Kalkbrenner holds an Associate's Degree in Fire Science from Phoenix College, a Bachelor's Degree in Fire Service Management from Ottawa University and is a graduate of the **Naval Postgraduate School**. She has served as an adjunct instructor for the Fire Services program at Maricopa County Community Colleges.

## **Laura Kavanagh Appointed New York City's First Female Fire Commissioner**

*(silive 27 Oct 22) ... Shaina McLawrence*

*(Homeland Security Today 31 Oct 22)*

Laura Kavanagh made history Thursday morning by becoming the first woman ever appointed New York City fire commissioner... Kavanagh is an alumnus of the Executive Leaders Program at the **Naval Postgraduate School's** Center for Homeland Defense and Security and the Stanford Graduate School of Business' Summer Institute. She has a bachelor's degree in political science and international relations from Whittier College and a master's degree in public administration from Columbia University's School of International and Public Affairs.

## **Garretty Steps Into City Manager Position**

*(GrahamLeader 28 Oct 22) ... Thomas Wallner*

Graham City Manager Eric Garretty started his new position Monday and convened with the city council Thursday for his first council meeting... Garretty holds a Masters of Science in Management from **Naval Postgraduate School** and a Bachelor of Arts in Political Science from the University of Mississippi. He is a member of the Texas City Management Association and is enrolled in the Texas State Certified Public Manager Program.

## **Sununu Replaces Female Emergency Management Director with 'Man For the Job'**

*(Concord Monitor 28 Oct 22) ... Jamie L. Costa*

When former Hudson Fire Chief Robert Buxton was approved to become the state's newest director of Homeland Security and Emergency Management, Gov. Chris Sununu called him "the man for the job"... She earned a Master's Degree in Homeland Security and Defense from the **Naval Postgraduate School**, an MBA from Southern New Hampshire University, a bachelor's degree in Business Management from Franklin Pierce University and an associate degree in Business Science from Hesser College, according to her bio.

## **Naval Academy Grad Wraps up Change of Command in Far East**

*(DVIDS 28 Oct 22)*

U.S. Naval Academy alumnus, Capt. Samuel F. de Castro, '96, commodore of Military Sealift Command Far East, wrapped up his major command tour, during a ceremony in Singapore, Oct. 28, officiated by USNA classmate, Capt. Frank Okata, commanding officer of Singapore Area Coordinator and former commodore of Task Force 63 and MSC Europe and Africa... The USNA alum who graduated from the Nichols School, Deerfield Academy and holds master's degrees from the **Naval Postgraduate School** and the Naval War College, served aboard USS Ramage (DDG 61), USS Peterson (DD 969), USS Mahan (DDG 72) and USS The Sullivans (DDG 68). During the tour aboard The Sullivans, de Castro served as the commanding officer.



## **CACI and the U.S. Naval Academy Foundation Partner to Advance National Security Studies in Honor of Dr. J.P. (Jack) London**

*(Business Wire 1 Nov 22)*

CACI International Inc (NYSE: CACI) announced today that it has launched a partnership with the U.S. Naval Academy Foundation to advance and create an enduring Electromagnetic Spectrum (EMS) program designed to prepare midshipmen for evolving threats to national security...Throughout CACI's 60-year history, the company has developed and successfully delivered some of the most advanced technologies and expertise in areas of electronic warfare (EW) and Electromagnetic Spectrum Operation (EMSO). The company's long-standing association with the USNA Foundation began under the leadership of Dr. London, who was a graduate of the U.S. Naval Academy (1959) and **Naval Postgraduate School** (1967). He was also inducted into the **Naval Postgraduate School** Hall of Fame (2011) and was honored as a U.S. Naval Academy Distinguished Graduate Award recipient in 2019. Dr. London served as President and Chief Executive Officer from 1984 to 2007 and was Executive Chairman and Chairman of the Board from 2007 until his death in January 2021. Dr. London was a primary architect in growing CACI from a small professional services firm to become a national security expertise and technology leader.

## **District Governor visits Rotary Club of Elkins**

*(The Inter Mountain 3 Nov 22)*

District Governor J. Dan McCarthy of Beckley visited the Rotary Club of Elkins, bringing updates as to district activities...McCarthy is a native of Auburn Hills, Michigan. He earned his Bachelor's Degree in Engineering from Oakland University and an MBA from the **Naval Postgraduate School**. He also holds a Presidential Honorary Degree from WVU.

## **Veteran Firefighter Appointed as Virginia Beach's New Fire Chief**

*(Virginian-Pilot 2 Nov 22) ... Caitlyn Burchett*

*(VBGov2 Nov 22)*

After a nationwide search, Virginia Beach selected one of its own as the fire department's next chief...Kenneth Pravetz, a 23-year veteran with the Virginia Beach Fire Department, will step into his new role Jan. 1, the city announced Wednesday... Pravetz has a combined 35 years of experience in the fire service, and he is a U.S. Air Force veteran. He holds an associate degree in fire science, a bachelor's degree in health and safety and a Master of Public Administration. Pravetz also earned a master's degree in security studies from the **Naval Postgraduate School**, Center for Homeland Defense and Security, and a certificate from the Senior Executives in State and Local Government at the Harvard Kennedy School of Government.

## **Crozet Scientist Contributes to Successful DART Mission**

*(Crozet Gazette 4 Nov 22) ... Theresa Curry*

We're about 66 million years too late to save the dinosaurs, but the recent successful DART (double asteroid redirection test) mission may one day allow us to save ourselves. It's not just the ability to change the orbital period of an object in space that makes the project, completed in September, so interesting, said Mallory DeCoster, who worked on the mission, but also that the science collected will help us learn a lot about the composition of the asteroid and what a monumental strike leaves behind, both on the asteroid and released into space. Like any professional scientist who talks about the project, she makes it clear that our planet was never threatened by the small body Dimorphos, in the orbit of Didymos... Many scientists who find themselves working on the mysteries of the mostly unseen universe are drawn there by a fascination with space, but DeCoster's route was different. "I was always the one more interested in physics," she said. "From the time I was in middle school, I found science, including chemistry and engineering, fascinating." She was a child of the Southwest who came to Virginia by way of an obligation. She completed her master's degree as a civilian in the **Naval Postgraduate School** in California, and its support of her degree required her to spend a year as an employee of the Department of Defense. That brought her to Charlottesville, the home of the National Ground Intelligence Center.

## **UPCOMING NEWS & EVENTS:**

**November 7-11: [JIFX 23-1](#)**

**November 11: Veteran's Day (Federal Holiday)**



## RESEARCH:

### NPS Professor Selected for ONR's Young Investigator Program for Research Impacting Lasers at Sea

*(Navy.mil 4 Nov 22) ... MC2 James Norket*

*(NPS.edu 4 Nov 22) ... MC2 James Norket*

Dr. David Ortiz-Suslow, a research assistant professor in the Naval Postgraduate School (NPS) Department of Meteorology, was one of 25 awardees selected for the Office of Naval Research's (ONR) highly competitive Young Investigator Program (YIP). His research addresses a critical gap in the understanding and numerical representation of ocean wave impacts on the temperature and humidity structures in the lower atmosphere, critical for shipboard combat systems effectiveness.

Ortiz-Suslow was chosen from 170 candidates for his proposed research in marine atmospheric surface layer processes, which impacts the electromagnetic propagation environment for Navy systems like radar, radio and optical communications systems, and directed energy weapons. Ortiz-Suslow's project, entitled "The Impact of Waves, Breaking, and Marine Aerosol Loading on the Marine Atmospheric Surface Layer," was selected for investigation in the Ocean Battlespace and Expeditionary Access category, and supports the Chief of Naval Operations' 2022 Navigation Plan (NAVPLAN) Force Design Imperative to Harden Defense for ships at sea.

"Electromagnetic systems are things like navigation technology, communications equipment, and both offensive and defensive weapons systems," said Ortiz-Suslow. "All of these systems depend on the natural environment, and we have to understand how they interact with the environment around that asset."

"ONR, and the Naval Research Enterprise as a whole, is committed to reimagining naval power," said Chief of Naval Research Rear Adm. Lorin C. Selby. "In order to achieve this, we need to attract the best and brightest scientists and engineers from across academia to take on warfighting challenges. The Young Investigator Program does just that."

According to Ortiz-Suslow, "NPS is the perfect place to conduct this research. Not only do we have the technical expertise for this research in the faculty, but we also have students who have first-hand operational experience using the equipment we are trying to make more effective."

ONR's Marine Meteorology and Space Weather Team Lead, Dr. Daniel Eleuterio, explained the wave-modulated atmospheric boundary layer significantly affects electromagnetic/electro-optical propagation in ways that aren't forecast well, especially in the coastal zone.

"Professor Ortiz-Suslow has been a rising star since we first encountered his research at University of Miami. He has continued to grow as a leader in the community on National Science Foundation, ONR, and other federally sponsored projects and is a great asset for the Naval Postgraduate School faculty and students. His proposal was innovative and unanimously ranked very highly by an inter-disciplinary selection panel. I'm looking forward to seeing the results of his research," said Eleuterio.

Ortiz-Suslow will receive a three-year grant to support his proposed research, which will ultimately advance the Navy and Marine Corps' understanding of the operational environment and its impact on critical naval systems.

Following the award of his doctorate in applied marine science from the University of Miami, Ortiz-Suslow began his career at NPS as a postdoctoral scholar studying how waves and currents affect atmospheric turbulence. His grant through ONR's Young Investigator Program will advance that work.

"The research I will conduct will build on studies I worked on during my post-doc," Ortiz-Suslow noted. "Aboard a research platform in southern California, we made some very interesting discoveries about how surface waves impact and modulate the lower atmosphere."

While Ortiz-Suslow is an accomplished researcher in his field, he is looking forward to having a more active role in guiding the research, and working collaboratively with his partners, over the grant's three years. The ONR YIP program is very selective, he added, and he is grateful to be a part of the program.



“I was ecstatic to be recognized by such a prestigious program,” said Ortiz-Suslow. “The scientists that got this award this year are really amazing, and I am incredibly honored and humbled to be included with such a fine group.”

Since 1985, the ONR Young Investigator Program has provided funding to select early career researchers whose work demonstrates “outstanding promise for supporting the Department of Defense, while also promoting their professional development.”

[NPS Professor Selected for ONR’s Young Investigator Program for Research Impacting Lasers at Sea > United States Navy > News-Stories](#)

[NPS Professor Selected for ONR’s Young Investigator Program for Research Impacting Lasers at Sea - Naval Postgraduate School](#)

[Return to Index](#)

## FACULTY:

### Guest Commentary: Cal Am Desal Not Like Doheny

*(Monterey Herald 1 Nov 22) ... Tom Moore*

When the California Coastal Commission considers Cal Am’s proposed desal plant in November, it should also consider how it differs from the recently approved Doheny desal plant in Dana Point.

The Doheny desal project is being built to serve the communities within its region. Cal Am proposes to build its source wells outside its customer area, in Marina and near Marina Coast Water District’s (MCWD’s) main well field, and then ship the desalinated water to wealthier Peninsula communities.

Marina’s groundwater basin is already overdrafted and Cal Am has no water rights to it. I believe that Cal Am will never obtain this right. The entire project concept is profoundly unfair to Marina. A 2020 Coastal Commission staff report noted that the Cal Am project “involves the most significant environmental justice concerns the Commission has considered.”

But the projects’ differences go even deeper. Doheny’s desal took care to use true slant-well technology that will draw water from under the ocean, to avoid taking from another community’s water supply. In contrast, Cal Am’s desal proposed wells are mostly underground rather than under the ocean and would pump 17,000 acre-feet of brackish (salty) groundwater from under Marina — five times more than MCWD’s wells.

That brackish water forms an important buffer between the ocean and Marina’s fresh groundwater. Pumping out the brackish water could allow saltwater to flow into the Seaside Groundwater Basin. This would force MCWD to spend tens of millions to move three large wells further inland, possibly drilling into the deep aquifer also used for Salinas area water supplies. Cal Am claims they won’t harm Marina Coast’s wells, but they can’t prove it. Our community can’t live with that.

The Doheny project also went out of its way to build away from sensitive habitats, choosing instead a developed campground that will remain open to the public. In contrast, Cal Am proposes damaging at least 35 acres of Environmentally Sensitive Habitat Areas near the beach which would impact threatened and endangered species and violate the Cemex Settlement Agreement.

All this to create expensive water Cal Am doesn’t even need. Cal Am is already meeting its water needs while complying with its Carmel River Consent Decree. Three independent studies, including one by the California Public Utility Commission Public Advocates, agree that the Pure Water Monterey recycled water expansion will meet Cal Am’s water needs until at least 2050, at half the cost of desal.

Of course, Cal Am cannot charge customers a profit for recycled water. It can, however, charge a 9% profit on capital investments like this unnecessary plant, generating large returns for private investors. This is a stark contrast to a project like Doheny, built by a public agency with no profit incentive to support a community that is currently 90% dependent on unreliable imported water.

I have no problem with desal. I have supported MCWD’s desal plant. It is simply unfair and unjust to saddle MCWD, Marina, and our neighbors with all of Cal Am’s harms and none of the supposed benefits.



The Commission should see the stark differences between the Cal-Am and Doheny projects, and reject this unneeded, unwanted, and unwise project.

Dr. Tom Moore is a professor at the **Naval Postgraduate School** and a director at Marina Coast Water District. This represents his personal opinion and not the opinion of the District.

<https://www.montereyherald.com/2022/11/01/guest-commentary-cal-am-desal-no-like-doheny/>

[Return to Index](#)

## **Sustaining the Fight for Women’s Rights in Iran as Repression Tightens**

*(Political Violence at a Glance 3 Nov 22) ... Yu-Ping Change and Ghashia Kiyani*

The death of 22-year-old Mahsa Amini, who died in custody after being detained for improperly wearing a hijab, ignited protests across Iran. Though the Iranian government blames foreign influence, the demonstrations are more diverse than any in Iran’s recent history. They include students, merchants, artists, athletes, business owners, and a range of ethnicities. Moreover, women have been at the forefront, demanding women’s rights, while taking off headscarves and cutting their hair.

What influence, if any, will these protests have on women’s rights in Iran, and on the shrinking space for the civil society organizations that advocate for them?

This year’s protests are part of a larger trend of demonstrations and civil activism that have been ongoing in Iran since 2016. They have occurred against a backdrop of US sanctions, rising inflation, low wages, poor working conditions, and significant unemployment. In 2021, economic hardship was further compounded by water shortages and electricity blackouts due to unusually high temperatures.

Suffice to say, the Iranian government is facing economic and political vulnerabilities. And like many states, the government is relying on its coercive apparatus to crack down on an increasingly agitated and mobilized population. Civil society leaders have been a particular target.

Much of the Iranian government’s power comes from the loyalty of the Islamic Revolutionary Guard Corps (IRGC), which itself depends on the government’s support to consolidate its economic interests. This arrangement is common among countries in the Middle East where militaries engage in profitable business—ranging from automotive, iron and steel, agrochemicals, construction, banking, tourism, and petroleum distribution—to supplement their state budgets. IRGC’s economic dependence on the government, plus its ideological alignment with the values of the Islamic Republic, means that it is likely to continue to do the government’s bidding and inflict violence on protesters.

Once the protests subside, the government’s violent crackdowns may ebb, but repression is likely to continue. Research on civil society suggests that the government will further narrow civil society spaces through laws and regulations, administrative impediments, and harassment of activists and non-governmental organizations (NGOs). Administrative measures—including erecting high thresholds for the registration of NGOs and human rights organizations and limiting access to financial resources—are likely to be adopted to curtail the activities of advocates, labor unions, and other civil society groups.

To prevent a further shrinking of civil spaces and violations of human rights, activists should focus on a strategy of naming and shaming—identifying human rights violators to a broader international audience—coupled with strong advocacy within the NGO networks. Iranian women’s NGOs need to cooperate with one another and form connections with the international community of human rights organizations. Transnational networks provide allies, including state actors and other international advocacy groups, that can exert pressure on repressive regimes. With domestic NGOs and the international community exerting pressures from the bottom up and top down, regimes are more likely to suffer reputationally and make concessions. One such example is Argentina in 1976 where police engaged in physical torture and women experienced increased violence. Domestic and international NGOs like Amnesty International named and shamed the Argentinean government for its rights abuses. In response, foreign governments like France, Sweden, and the US condemned rights violations, and the US reduced military aid to Argentina. As a result, Argentina’s government took concrete measures to address human rights violations.



The naming and shaming strategy should avoid playing into the Iranian government's strategy of convincing Iranians that protests are being instigated by outside actors. In promoting women's rights, NGOs and civic groups should formulate narratives that have the potential to win over friends, or at least not to create more antagonism between citizens and the government and more alienation among the population that fears foreign influence.

Advocates must similarly calibrate their advocacy to increase the likelihood that the Iranian government will make concessions on women's political rights. Studies of women's NGOs in Iran show that when civil society groups avoid seeking changes in laws—which could call into question the legitimacy of the regime—and instead focus on changing social attitudes, creating spaces for dialogue and debates, and developing programs that improve individuals' lives, the government loosens restrictions on these groups. Advocates may also want to focus on less divisive issues that are nonetheless vital for women's empowerment, such as labor force participation. Although Iran's unemployment rate has ranged between about 10 to 13.7 percent overall over the past decade, the rates are consistently higher for women, at between 17 to 21.1 percent. More advocacy is needed to improve women's economic and social rights in Iran.

So, how likely are these protests to produce change for Iranian women? At the moment, women's rights groups in Iran, and individual women involved in the protests, face the long-term prospect of continuous repression. Nevertheless, discontent among the population is unlikely to die out soon given that these grievances are widespread and rooted in structural factors that cannot be addressed overnight. Academic research shows that protests that cut across demographic groups are more likely to achieve change. Iranian advocacy groups thus have the opportunity to take advantage of this momentum to sustain their efforts to keep pressure on the government from below, while aided by the international community of human rights advocates.

Yu-Ping Chang holds a doctoral degree in Security Studies from Kansas State University. Ghashia Kiyani is a Donald R. Beall Defense Fellow at the **Naval Postgraduate School** and a Visiting Assistant Professor at Western Illinois University.

[Sustaining the Fight for Women's Rights in Iran as Repression Tightens - Political Violence at a Glance](#)

[Return to Index](#)

## ALUMNI:

### **Admiral Craig Faller Joins Viken Detection's Board of Directors**

*(Business Wire 24 Oct 22)*

Viken Detection today announced that Admiral Craig Faller has been appointed to its board of directors.

"I have been impressed with the dedicated, hard-working, innovative, and trusted VIKEN team. I am excited to work with them."

Craig Faller is a retired four-star United States Navy Admiral with nearly four decades of global leadership experience. Faller most recently led United States Southern Command where he was responsible for U.S. military operations in Latin America and the Caribbean with the primary objective of forging strong security partnerships. He has served in the Middle East and Indo-Pacific regions both on large staffs and in Command of a United States Navy Carrier Strike Group and two warships. He has extensive Washington, DC experience in the Pentagon and with Congress as the Department of the Navy's Chief of Legislative Affairs (lead representative to Congress on behalf of the leadership of the Navy). In the Pentagon he served as the senior military assistant to the Secretary of Defense.

A graduate of the United States Naval Academy, Faller earned a bachelor's degree in systems engineering and a master's in national security affairs from the **Naval Postgraduate School**.



“It is a privilege to welcome Craig to our board,” said Jim Ryan, CEO of Viken Detection. “I’m looking forward to working with him to widen VIKEN’s reach in providing innovative technologies to support the critical missions of both law enforcement and the military.”

“VIKEN’s cutting-edge technology and world-class products enhance security and saves lives,” said Admiral Faller. “I have been impressed with the dedicated, hard-working, innovative, and trusted VIKEN team. I am excited to work with them.”

[Admiral Craig Faller Joins Viken Detection’s Board of Directors | Business Wire](#)

[Return to Index](#)

## **Brigadier General John Lubas, Deputy Commander, 101st Airborne Division**

*(Presidential Prayer Team 27 Oct 22)*

John W. Lubas was born in January 1975 in Princeton, New Jersey. He earned an undergraduate degree from Wake Forest University where he was a member of the Army ROTC. He also holds a Master of Science in Defense Analysis from the **Naval Postgraduate School** and a Master of Strategic Studies from the U.S. Army War College.

He worked his way up through the ranks of the Army from being a Rifle Platoon Leader, to an aide-de-camp, and an executive officer in an infantry division. He served as the Adjutant Assistant Operations Officer and C Company Commander in the 25th Infantry Division at Fort Lewis, Washington. He was later deployed to Iraq and Afghanistan.

He commanded the 2nd Battalion, 402nd Infantry Regiment at Fort Campbell, Kentucky, deploying again to Afghanistan. He would deploy several more times, each one as a commander of a brigade. He deployed to Thailand in support of Pacific Pathways. Lubas served as the Executive Officer to the Secretary of the Army in 2020-2021.

He presently serves as the Deputy Commander for Operations of the 101st Airborne Division of the U.S. Army.

The U.S. Army’s 101st Airborne Division has been deployed to Europe for the first time in almost 80 years amid increasing tension between Russia and the American-led NATO military alliance. The light infantry unit, nicknamed the “Screaming Eagles,” is trained to deploy on any battlefield in the world within hours, ready to fight.

Journalists joined the division’s Deputy Commander, Brigadier General John Lubas, and Colonel Edwin Matthaïdess, Commander of the 2nd Brigade Combat Team, on a Black Hawk helicopter for the hour-long ride to the very edge of NATO territory — only around three miles from Romania’s border with Ukraine.

From the moment Russian President Vladimir Putin launched his full-scale invasion of Ukraine on February 24, his forces have advanced northward from the Crimean Peninsula, a Ukrainian region that Moscow illegally seized control of in 2014.

For more than seven months, Russian troops have tried to push along the Black Sea coast into the Kherson region, aiming to capture the key Ukrainian port cities of Mykolaiv and Odesa. The intent is to cut off all Ukrainian access to the sea, leaving the country and its military forces landlocked.

That threat, so close to NATO territory in Romania, is why one of America’s most elite air assault divisions has been sent in, along with some heavy equipment.

“We’re ready to defend every inch of NATO soil,” Brigadier General Lubas said. “We bring a unique capability, from our air assault capability... We’re a light infantry force, but again, we bring that mobility with us, for our aircraft and air assaults.”

[Brigadier General John Lubas, Deputy Commander, 101st Airborne Division – The Presidential Prayer Team](#)

[Return to Index](#)





## **Webinar: The future of Public Safety Technology**

*(EMSI 26 Oct 22)*

Learn how technology will shape the future of public safety operations, based on results of the second annual Verizon Frontline Public Safety Communications survey

During this webinar we will discuss the results of the second annual Verizon Frontline Public Safety Communications survey and what the responses of more than 2,000 first responders tell us about the importance of fast, reliable and secure communications technology to the success of any emergency response effort as well as how public safety communications technology has evolved.

We will also discuss how the speed and reliability of 5G is helping transform the public safety landscape and the innovations and capabilities it is helping enable.

Finally, you'll hear first-hand from three distinguished leaders in the world of public safety on how they've seen public safety communications technology develop throughout their careers and how they feel technology will help shape the future of public safety operations, enabling first responders to do their jobs more safely and efficiently.

### **MEET THE SPEAKERS**

#### **Cory Davis, Assistant Vice President, Verizon Frontline**

Cory has nearly 20 years of advanced wireless technology and public safety leadership experience. Currently, he serves as the Assistant Vice President of Verizon Frontline. His team partners with public safety and public sector agencies nationwide to help them stay connected, innovate, plan for the future, mitigate pain points, and prepare for times of crisis and emergencies.

#### **Kara Kalkbrenner, Former Chief Phoenix Fire Department**

A native Phoenician, Fire Chief Kara Kalkbrenner joined the Phoenix Fire Department in 1985. During her 37 plus years of service, she held the ranks of Fire Engineer, Fire Captain, Division Chief, Deputy Chief and Executive Assistant Chief of Administration.

Chief Kalkbrenner was one of only six female Fire Chiefs of large metropolitan fire departments in the country. Her philosophy is that public administrators are community stakeholders and play an integral role in shaping the community where they work and live. Chief Kalkbrenner led 2,300 members and oversaw an operating budget of more than \$550 million dollars, carefully stewarding taxpayer dollars and city resources while serving as Phoenix Fire Department's Fire Chief.

Chief Kalkbrenner holds an Associate's Degree in Fire Science from Phoenix College, a Bachelor's Degree in Fire Service Management from Ottawa University and is a graduate of the **Naval Postgraduate School**. She has served as an adjunct instructor for the Fire Services program at Maricopa County Community Colleges.

#### **Karen Tandy, Former Administrator, US Drug Enforcement Administration (DEA), and Member, Homeland Security Advisory Council and Commission on Combating Synthetic Opioid Trafficking**

Karen P. Tandy has more than 40 years of leadership experience in the public and private sectors with executive board experience serving on for-profit and nonprofit boards. She heads a government affairs consulting firm in the Washington, DC, area.

Ms. Tandy was appointed by President George W. Bush and unanimously confirmed by the U.S. Senate as the first female to head the U.S. Drug Enforcement Administration (DEA), where she managed a \$2.4 billion budget and approximately 11,000 employees in 86 global offices from 2003 to 2007. During her tenure, the DEA dismantled 80% more significant drug-trafficking organizations, contributing to a 23% reduction in teen drug use, and the lowest level of workplace drug use in almost 20 years.

Ms. Tandy was appointed by the U.S. Congress to the Commission on Combating Synthetic Opioid Trafficking in 2020. She is Chair of the Board of Directors of the National Center for Missing and Exploited Children, previously leading its law enforcement operations committee. She also is a member of the U.S. Department of Homeland Security Advisory Council (DHS HSAC). Ms. Tandy is a lawyer



admitted to the state bars of Texas and Virginia, and is the Founder and Principal of KPT Consulting, LLC. She resides in northern Virginia.

### **Brian Dugan, Tampa Chief of Police (Retired)**

Brian Dugan served with the Tampa Police Department for 31 years, his final four years he served as the 32nd Chief of Police.

Throughout his career, Chief Dugan recognized the value of community relationships. He quickly rose through the ranks leading to his appointment of Chief of Police in 2017. Under his command, the Tampa Police Department was the lead agency among 70 other law enforcement partners for Super Bowl LV in 2020, as well as the lead agency for security during back-to-back Stanley Cup championships. The Tampa Police Department also coordinated security for the celebratory boat parades which, due to the pandemic, were the first of its kind.

Brian Dugan is best known for the innovative ways he cultivated police-community relationships through outreach and engagement. He created an integrated approach to fighting crime by developing a sustainable methodology of enhancing public trust and building community partnerships.

Chief Dugan earned a Bachelor of Science in Criminal Justice from West Liberty University and a Master of Public Administration degree from Troy State University. He is a graduate of the prestigious Southern Police Institute's Command Officers Development Course. In 2014, he attended the Senior Management Institute for Police. He is a graduate of the FBI's National Executive Institute and Leadership Tampa. Chief Dugan is also a member of several professional associations, including the Tampa Bay Area Chiefs of Police Association, Florida Police Chiefs Association, International Association of Chiefs of Police, National Association of Women Law Enforcement Executives, National Association of the Advancement of Colored People (NAACP), and Police Executive Research Forum.

[Webinar: The Future of Public Safety Technology \(ems1.com\)](#)

[Return to Index](#)

### **Laura Kavanagh Appointed New York City's First Female Fire Commissioner**

*(silive 27 Oct 22) ... Shaina McLawrence*

*(Homeland Security Today 31 Oct 22)*

Laura Kavanagh made history Thursday morning by becoming the first woman ever appointed New York City fire commissioner.

Mayor Eric Adams made the historic appointment, the first in the 157-year history of the FDNY.

As FDNY commissioner, Kavanagh will oversee the day-to-day administration of the agency's 17,000 employees and \$2 billion budget.

Since February, Kavanagh has served as acting interim fire commissioner.

Prior to that, Kavanagh worked at City Hall as a special assistant to Mayor Bill de Blasio. She also previously worked in management and campaign consulting with non-profits, community-based organizations, and unions, the city said in its announcement. In that time, she held senior roles on presidential, mayoral, congressional, and local campaigns, the announcement said.

In 2015, Kavanagh helped lead FDNY's Ebola outbreak response. In 2020, Kavanagh was part of the COVID-19 Impact for New York City. She also directed a firefighter recruitment program that yielded the most diverse applicant pool in the department's history.

She has taken the lead in distributing smoke alarms to at-risk communities, improved the department's incident command app and has also cut the wait time in half for businesses waiting for fire inspections.

New Yorkers and New York City's bravest "deserve an exceptional leader, and Laura has the vision, skills, the compassion to lead the FDNY into the future," said Adams.

Adams swore Kavanagh into office using the bible passed down from her grandmother. With her right hand on the bible, Kavanagh swore to support The U.S. Constitution and that of New York state.



“Having a woman in this role is a change, but change provides opportunity,” said the newly-appointed commissioner. “Change, in fact, is the only constant in life, and if we embrace it, change is a gift. It provides an opportunity to bring more people into the gift that is the FDNY. It is a reminder that we are alive and that we can move something we love forward to be even stronger. Change is what has made this department and this city continually stronger. It is why we are the best.”

Kavanagh is an alumnus of the Executive Leaders Program at the **Naval Postgraduate School's** Center for Homeland Defense and Security and the Stanford Graduate School of Business' Summer Institute. She has a bachelor's degree in political science and international relations from Whittier College and a master's degree in public administration from Columbia University's School of International and Public Affairs.

When asked to explain the perceived delay in making Kavanagh's appointment official, Adams said he needed time to learn the FDNY's needs and culture.

Through talking with members, union leadership and the department chief, Adams kept coming back to Kavanagh as the perfect person for the job, he said.

Elected officials citywide, including Staten Island City Councilman Joseph Borelli, were quick to praise the appointment.

“As the former chair of the Committee on Fire and Emergency Management, I spent four years working alongside Commissioner Kavanagh during some of the toughest days in the fire department's recent history,” Borelli said. “I have absolute confidence in her abilities and know she will serve the city well for years to come. She knows her stuff and she cares, and we are lucky to have her.”

[Webinar: The Future of Public Safety Technology \(ems1.com\)](#)

[Laura Kavanagh Becomes Commissioner of New York City Fire Department - HS Today](#)

[Return to Index](#)

## **Garretty Steps Into City Manager Position**

*(GrahamLeader 28 Oct 22) ... Thomas Wallner*

Graham City Manager Eric Garretty started his new position Monday and convened with the city council Thursday for his first council meeting.

Garretty follows former City Manager Brandon Anderson, who announced in April he would be resigning from the position, and Interim City Manager Larry Fields, who was appointed in June.

The city made a conditional offer Wednesday, Aug. 31 to Garretty for the position of city manager. Garretty was one of three candidates presented to the city council in an interview process the same day.

During the process, each city council member had 30-minute, one-on-one sessions with each potential hire and later had group interviews with the candidates. Garretty said the city council and the city manager share an important task when solving city concerns.

“I think that between the city manager and the city council, one of the things is kind of unspoken but it's always important, is that group of people in the community, that group of leaders, is the ones that always have to be looking ahead, not ignoring what's going on,” he said.

Garretty holds a Masters of Science in Management from **Naval Postgraduate School** and a Bachelor of Arts in Political Science from the University of Mississippi. He is a member of the Texas City Management Association and is enrolled in the Texas State Certified Public Manager Program.

[Garretty steps into city manager position | Graham Leader](#)

[Return to Index](#)



## Sununu Replaces Female Emergency Management Director with ‘Man For the Job’

(Concord Monitor 28 Oct 22) ... Jamie L. Costa

When former Hudson Fire Chief Robert Buxton was approved to become the state’s newest director of Homeland Security and Emergency Management, Gov. Chris Sununu called him “the man for the job.”

Buxton was chosen by Sununu this summer to replace Jennifer Harper, who was the first female director and only the third director since the division was formed in 2006. Harper was also one of few women in a top leadership role in the male-dominated Department of Safety.

“Keeping New Hampshire safe and secure is critical and Robert Buxton is the man for the job,” said Gov. Sununu in a news release announcing the change in authority.

Harper’s resume showed 35 years of service to the state. She started her career in emergency management in 1991 under the NH Governor’s Office of Emergency Management and went on to serve as the HSEM Operations Chief, co-director of the Department of Safety’s Information and Analysis Center, HSEM Bioterrorism Coordinator, HSEM State Exercise Training Officer and HSEM Terrorism Coordinator.

She earned a Master’s Degree in Homeland Security and Defense from the **Naval Postgraduate School**, an MBA from Southern New Hampshire University, a bachelor’s degree in Business Management from Franklin Pierce University and an associate degree in Business Science from Hesser College, according to her bio.

Sununu’s staff said Harper wasn’t reappointed simply because her term ended. However, it’s commonplace for a governor to reappoint commissioners, assistant commissioners and division heads for more than one term, like former Department of Safety Commissioner John Barthelmes, who served three, four-year terms. Current commissioner Robert Quinn’s term ends next year.

“Director Harper’s term ended on July 24, 2022 and the Governor thanks Jennifer for her service to the state,” said Jayne Millerick, the Governor’s Chief of Staff, in an email to the Monitor. “After the position was posted, the Department of Safety underwent an extensive application and interview process.”

Had Gov. Sununu reappointed Harper to the position, she would have accepted, she said. Harper declined further comment for the story.

Millerick did not comment on Sununu’s choice not to reappoint Harper.

Support the Concord Monitor. [Subscribe Today](#)

The division of Homeland Security and Emergency Management is generally responsible for coordinating the state’s response to major disasters as well as planning, training and exercises to ensure readiness at the local and state levels of government for the safety and security of the state’s residents and visitors.

Buxton, of Bedford, has an equally lengthy career in municipal-level public service. He became the chief of the Hudson Fire Department in 2013 and was also the emergency management director for the town. Before that he served as a Lieutenant with Nashua Fire Rescue.

Five days before Buxton was sworn in for his state job, he “retired” from Hudson on September 1, which means he will collect an annual pension of \$93,036 on top of his \$115,492 salary from the Department of Safety. Harper was not collecting a pension when she was director, according to New Hampshire Retirement System records.

When asked about the decision to hire Buxton and allow him to earn a pension on top of his salary, Millerick said he was going to receive the money regardless of whether he reentered public service, or not. Buxton was approved unanimously by the state’s five-member Executive Council.

For his part, Buxton said he remains committed to having women in leadership roles at Homeland Security and Emergency Management.

“We have a strong female leadership team; two out of five of our section chiefs are female and all but one of the assistants are female,” Buxton said. “We have a strong female leadership team with the HSEM and I am very proud of that every day.”

Buxton said he was humbled by his appointment and is excited to take on his new role.

“I worked for 30 years municipally and this is an opportunity to come in and learn the new systems, the new employees and the programs that are established,” Buxton said in a phone interview with the Monitor. “Then, as a group, we will move forward with making changes.”



[Garretty steps into city manager position | Graham LeaderSununu replaces female emergency management director with 'man for the job' \(concordmonitor.com\)](#)

[Return to Index](#)

## Naval Academy Grad Wraps up Change of Command in Far East

*(DVIDS 28 Oct 22)*

U.S. Naval Academy alumnus, Capt. Samuel F. de Castro, '96, commodore of Military Sealift Command Far East, wrapped up his major command tour, during a ceremony in Singapore, Oct. 28, officiated by USNA classmate, Capt. Frank Okata, commanding officer of Singapore Area Coordinator and former commodore of Task Force 63 and MSC Europe and Africa.

"I am deeply honored to have had the opportunity to have served with all of the ships and crews throughout MSC Far East," de Castro said during the change-of-command ceremony. "I leave this command with a deep appreciation for our civil-service and contracted mariner workforce, which I believe is the best in the world.

"Your can-do attitude, commitment to the mission, dedication and professionalism are eye watering. I thank you for all you have done. I appreciate the sacrifices you have made and challenges you've overcome, which allowed our naval forces to operate and never miss a mission.

"Many thanks to you and your families and loved ones who have also made sacrifices and endured long absences."

The active-duty and civilian personnel and civil service and contracted mariners de Castro led during the last two years provide support to all U.S. Transportation Command and MSC ships, and on many occasions, crews of partners and Allies, operating throughout the U.S. 7th Area of Operations. The Buffalo, New York, native says that whether through port operations; manning, training, or equipping crews or conducting and supporting operations at sea, MSCFE assets are exactly where and when they're needed.

"Our ships provide direct support to all of the [Seventh Fleet] units operating at sea, under the sea and in the air. Our crews enable our warfighters to stay on station and accomplish their missions," de Castro said.

"I will always appreciate all I have learned from those around me here at MSC, and since the time I was a midshipman, I was – and am -- impressed with our ability to replenish our forces at sea, which is just one reason why I have enjoyed being part of this command."

Since taking the helm at MSC Far East, de Castro claims the inaugural ship maintenance conducted in India and increased locations for maintenance throughout the Indo-Pacific region as highlights of this tour.

Prior to assuming command of MSCFE, de Castro served as chief of staff for Logistics Group, Western Pacific and Task Force 73. Other assignments ashore included the staff of the Deputy Chief of Naval Operations; support to NATO while on the Joint Staff; the Afghanistan Counter Insurgency Academy in Darulaman, Afghanistan; U.S. 6th Fleet and Striking Forces NATO.

The USNA alum who graduated from the Nichols School, Deerfield Academy and holds master's degrees from the **Naval Postgraduate School** and the Naval War College, served aboard USS Ramage (DDG 61), USS Peterson (DD 969), USS Mahan (DDG 72) and USS The Sullivans (DDG 68). During the tour aboard The Sullivans, de Castro served as the commanding officer.

His next assignment will be at the Navy Yard in Washington, DC.

Capt. Robert R. Williams relieved de Castro as commodore of MSC Far East, which includes offices in Singapore, Guam, Korea, Japan, and a presence in Republic of the Philippines.

[DVIDS - News - Naval Academy Grad Wraps up Change of Command in Far East \(dvidshub.net\)](#)

[Return to Index](#)



## **CACI and the U.S. Naval Academy Foundation Partner to Advance National Security Studies in Honor of Dr. J.P. (Jack) London**

*(Business Wire 1 Nov 22)*

CACI International Inc (NYSE: CACI) announced today that it has launched a partnership with the U.S. Naval Academy Foundation to advance and create an enduring Electromagnetic Spectrum (EMS) program designed to prepare midshipmen for evolving threats to national security.

Through this partnership, CACI honors former Executive Chairman and Chairman of the Board, Dr. J.P. (Jack) London, whose legacy and passion for advancing national security endures within the company today and directly aligns with the USNA's ongoing mission.

Throughout CACI's 60-year history, the company has developed and successfully delivered some of the most advanced technologies and expertise in areas of electronic warfare (EW) and Electromagnetic Spectrum Operation (EMSO). The company's long-standing association with the USNA Foundation began under the leadership of Dr. London, who was a graduate of the U.S. Naval Academy (1959) and **Naval Postgraduate School** (1967). He was also inducted into the **Naval Postgraduate School** Hall of Fame (2011) and was honored as a U.S. Naval Academy Distinguished Graduate Award recipient in 2019. Dr. London served as President and Chief Executive Officer from 1984 to 2007 and was Executive Chairman and Chairman of the Board from 2007 until his death in January 2021. Dr. London was a primary architect in growing CACI from a small professional services firm to become a national security expertise and technology leader.

Today, CACI is a recognized leader in delivering innovative EW and EMSO technology to provide spectrum advantage and the company's decades-long commitment to advancing EW is deeply rooted in its mission orientation and culture of innovation. Through this partnership, CACI will contribute its expertise as guest speakers, provide advanced EW technology/equipment, mentor capstone projects, and continue its intern program with the academy to assist in the development of USNA EMS studies.

John Mengucci, CACI President and Chief Executive Officer, said, "This partnership establishes an enduring tribute to Dr. Jack London's passion for advancing national security as a USNA alumnus and his 45-year legacy as a senior leader with CACI. Our support helps to ensure that our future Naval leaders are equipped with the latest advancements in EW and EMSO, while also aligning academics to real-world threats and solutions as a national security imperative."

[CACI and the U.S. Naval Academy Foundation Partner to Advance National Security Studies in Honor of Dr. J.P. \(Jack\) London | Business Wire](#)

[Return to Index](#)

## **District Governor visits Rotary Club of Elkins**

*(The Inter Mountain 3 Nov 22)*

District Governor J. Dan McCarthy of Beckley visited the Rotary Club of Elkins, bringing updates as to district activities.

McCarthy is a native of Auburn Hills, Michigan. He earned his Bachelor's Degree in Engineering from Oakland University and an MBA from the **Naval Postgraduate School**. He also holds a Presidential Honorary Degree from WVU.

He completed a 38-year career as a logistician in the U.S. Navy and retired from military service as the head of logistics for the Navy in the Pentagon. McCarthy was invited to join Rotary in 1992 while working in Athens, Georgia.

In 2007, McCarthy attended the Boy Scout World Jamboree in England as a staff member. He had been a member of scouts since he was 8 years old and it was always a part of his life. During his stint at the Jamboree, McCarthy spent time talking with the scouts and asking them what about being at the event has made an impact on their lives.

"One morning, a black South African scout said, 'You know, being black here doesn't matter.'" At that point, McCarthy had been in the Navy since 1969, had visited more than 70 countries and had seen



conditions that led him to conclude it was tough to change the world. “That one conversation with that scout made an impact on me. The best way to change how we think about things is through the youth. Engage the youth and show them we can live together differently, we don’t have to hate each other, we don’t have to fight each other, this could be a different world.”

In 2017, McCarthy attended the Rotary International Convention with more than 30,000 fellow Rotarians from all over the globe. At that point, it gelled for McCarthy that the combination of scouting addressing the youth and Rotary’s ability to impact how the world works together and thinks are unique.

“That’s really where the light bulb went on for me and I got involved in Rotary leadership,” said McCarthy.

This year is unique in the history of Rotary because Jennifer Jones from Ontario, Canada is the first female president of Rotary International. Additionally, the 2024-2025 Rotary International President Nominee is Stephanie Urchick from McMurray, Pennsylvania. Urchick’s club is a member of the same Rotary zone as the Elkins club.

President Jones’ theme for Rotary this year is “Imagine.” Major changes in policies and procedures have recently been put into place giving clubs more flexibility to bring new Rotarians into clubs. President Jones is placing emphasis on diversity and inclusion, retention of current members and raising Rotary’s profile.

By diversity and inclusion, Jones is asking clubs to think in terms of ideas, not just demographics. While Rotary has a fairly stable membership, Jones is asking clubs to think about the Rotary experience as a whole and making it meaningful. Finally, Jones is a communicator and broadcaster by profession and believes that raising Rotary’s profile is key to continued success. She plans to visit multiple Rotary project sites and bring them to the forefront of the international media.

McCarthy brought attention to the Rotary Mission Statement: To provide service to others, promote integrity, and advance work understanding, goodwill, and peace through its fellowship of business, professional, and community leaders. There are various means for Rotary clubs to support this mission statement. The Polio Plus program which is dedicated to worldwide eradication of polio, exchange programs and the Rotary grant program are all ways to meet these aims. This Rotary District has partnered with a Rotary District in India and Marshall University to provide a mobile dental unit to serve West Virginia children.

DG McCarthy also spoke with the club about increasing its impact through Membership, Community Service, Public Image, Foundation Giving and Fun. McCarthy challenged the members to evaluate their impact both as individual members and as a club and to use these areas as a way to “...constantly assess and ask ourselves how we’re doing, are we in a rut, or are we really expanding and increasing our impact,” concluded McCarthy.

Rotary is a global network of 1.4 million neighbors, friends, leaders and problem-solvers who see a world where people unite and take action to creating lasting change — across the globe, in their communities, and in themselves.

Visit [www.Rotary.org](http://www.Rotary.org) to learn more about Rotary International, visit the club’s Facebook page – Rotary Club of Elkins — or contact club president Kristie Vandevander at [k-ware@yahoo.com](mailto:k-ware@yahoo.com) for more information about the Rotary Club of Elkins.

[District Governor visits Rotary Club of Elkins | News, Sports, Jobs - The Intermountain](#)

[Return to Index](#)

## **Veteran Firefighter Appointed as Virginia Beach’s New Fire Chief**

*(Virginian-Pilot 2 Nov 22) ... Caitlyn Burchett*

*(VBGov2 Nov 22)*

After a nationwide search, Virginia Beach selected one of its own as the fire department’s next chief.

Kenneth Pravetz, a 23-year veteran with the Virginia Beach Fire Department, will step into his new role Jan. 1, the city announced Wednesday.



Pravetz has been with the Virginia Beach Fire Department since February 1999. He currently serves as the deputy chief of services responsible for personnel, finance, training, logistics, planning and community risk reduction.

Pravetz was selected around four months after Fire Chief David Hutcheson announced his retirement June 23 after nearly six years in the role. Hutcheson started his career as a volunteer with Kempsville Fire Station #9 before joining the Virginia Beach Fire Department in August 1988, serving a total of 35 years.

In June, City Manager Patrick Duhaney said Hutcheson's departure would "undoubtedly leave some big shoes to fill."

"Pravetz has the proven leadership and communication skills needed to be successful across our organization, in collaboration with our community partners and through a wide range of public safety emergencies," Duhaney said in a news release. "His decades of diversified management experience will help Virginia Beach continue to be a national leader in public safety for many more years to come."

Pravetz has a combined 35 years of experience in the fire service, and he is a U.S. Air Force veteran. He holds an associate degree in fire science, a bachelor's degree in health and safety and a Master of Public Administration. Pravetz also earned a master's degree in security studies from the **Naval Postgraduate School**, Center for Homeland Defense and Security, and a certificate from the Senior Executives in State and Local Government at the Harvard Kennedy School of Government.

Pravetz said in the release he is honored to lead the "world class fire department."

"The VBFD has a rich history. This department supplies exceptional fire, medical and emergency services," Pravetz said. "I am truly proud to be part of this organization. The staff is mission focused and driven by our core values of Service, Caring, Integrity, Trust and Honesty."

[Veteran firefighter appointed as Virginia Beach's new fire chief – The Virginian-Pilot \(pilotonline.com\)](#)

[Deputy Chief Kenneth Pravetz Selected as Chief of the Virginia Beach Fire Department :: Articles :: VBgov.com - City of Virginia Beach](#)

[Return to Index](#)

## **Crozet Scientist Contributes to Successful DART Mission**

*(Crozet Gazette 4 Nov 22) ... Theresa Curry*

We're about 66 million years too late to save the dinosaurs, but the recent successful DART (double asteroid redirection test) mission may one day allow us to save ourselves. It's not just the ability to change the orbital period of an object in space that makes the project, completed in September, so interesting, said Mallory DeCoster, who worked on the mission, but also that the science collected will help us learn a lot about the composition of the asteroid and what a monumental strike leaves behind, both on the asteroid and released into space. Like any professional scientist who talks about the project, she makes it clear that our planet was never threatened by the small body Dimorphos, in the orbit of Didymos.

DeCoster is a Crozet resident who has been working with NASA and the Johns Hopkins Applied Physics Laboratory on the project. While most of us feel overwhelmed when we consider the knowledge necessary to understand the intersection of chemistry, physics and mechanical engineering, it always came naturally to DeCoster.

Many scientists who find themselves working on the mysteries of the mostly unseen universe are drawn there by a fascination with space, but DeCoster's route was different. "I was always the one more interested in physics," she said. "From the time I was in middle school, I found science, including chemistry and engineering, fascinating." She was a child of the Southwest who came to Virginia by way of an obligation. She completed her master's degree as a civilian in the **Naval Postgraduate School** in California, and its support of her degree required her to spend a year as an employee of the Department of Defense. That brought her to Charlottesville, the home of the National Ground Intelligence Center.

"I had never even heard of Charlottesville," she said, "but I fell in love with the whole area." She also fell in love with the field of applied physics and, when her year was up, she began working at Johns





Hopkins Applied Physics Lab in Laurel, Maryland. They offered her a chance to get a Ph.D. in mechanical engineering at U.Va. while continuing to work part-time for them.

Once her Ph.D. was complete, she was able to continue at the lab and eventually become part of the DART team.

She notes that, though led by NASA, the mission brought her together with scientists from all over the world. “If you’re working on planetary defense, there has to be collaboration,” she said. “Obviously, it’s harder when there are political differences between countries, but if there were to be a really credible threat, we’d have to join forces. We don’t get to choose where in the world an asteroid might be headed.”

DeCoster’s team is charged with examining the scientific findings gathered by the mission. “Obviously the first goal was to actually hit the asteroid,” she said, “to change its orbital period, and to measure that change.” The 32-minute change, as measured by an earth-based telescope, was more than the team had anticipated, although well within the range predicted.

Still, with an asteroid headed straight for us, isn’t that kind of change insignificant— perhaps only prolonging the agonizing anticipation of the event? She explained that this kind of small nudge accumulates over time and distance, sending an asteroid as many as millions of miles away from its previous course.

Time is the essential constraint on everything we do in space. DeCoster said the mission was launched 10 months before its anticipated impact was publicized. NASA keeps its eye on thousands of objects circulating, with more discovered every day, in hopes of discovering a dangerous trajectory years before it actually becomes dangerous.

An outline of the DART mission shows the objects involved. LICIACube, an Italian spacecraft, joined the mission to observe and study the impact, and to capture images from this historic event.

People are able to relate to this mission more than they can to other important NASA projects, DeCoster said, because just such an event—the world responding to a threatening asteroid—has been pictured in popular science fiction books and films. In fictionalized accounts, the offending asteroid is often blown up by charismatic scientists on the ground or heroes in space suits with the help of a nuclear device. “Obviously, this would have terrible implications for the future,” DeCoster said. “We don’t want nuclear debris floating around in space.” Also, unlike the fictionalized versions, there was no direct control from the ground once the mission was launched. The spacecraft carried an autonomous navigation system.

Her team has an interest in the kind of debris formed by the real-life impact of an object the size of a vending machine hitting an object the size of the Empire State Building, in this case at about 14,000 miles per hour. The debris, called ejecta, factors into the complicated physics involved in the movement of the asteroid—the more ejecta, the larger the thrust. And the debris also tells us what asteroids, or at least this particular asteroid, are made of.

“We didn’t know if this was a kind of basalt rock, or a sandy mass,” DeCoster said. It turns out it’s both: “Our preliminary studies show that there are a lot of large monolithic chunks in a sandy matrix.”

DeCoster’s job title is that of co-investigator of the impact modeling working group. She’s also found herself speaking to the public about the mission, and has had some success in that role. Unlike some scientists, “I’ve learned to take out the jargon,” she said. “I really enjoy bringing our work to a larger audience.”

[Crozet Scientist Contributes to Successful DART Mission | Crozet Gazette](#)

[Return to Index](#)

