

INSTITUTE REPORT

VIRGINIA MILITARY INSTITUTE

Volume 49, Number 7, May 2021

Wins Named 15th Superintendent

By Col. Bill Wyatt and Mary Price

Maj. Gen. Cedric T. Wins '85 will serve as VMI's 15th superintendent, according to a unanimous vote April 15 by the Institute's Board of Visitors. Wins, a 34-year veteran of the U.S. Army who retired in 2020, had served as interim superintendent since November 2020 following the resignation of Gen. J.H. Binford Peay III '62.

"Maj. Gen. Wins has distinguished himself as a leader whose



Brig. Gen. Robert "Bob" Moreschi congratulates Maj. Gen. Cedric T. Wins '85 during a meeting with Institute leaders in the superintendent's office after Wins was named superintendent April 15.—VMI Photo by Kelly Nye.

See Wins, page 17

Keydets Win SoCon Title

By Maj. Michelle Ellwood

The past year has been nothing short of unbelievable. The history books will highlight a great deal about 2020 and 2021, and VMI football did not want to be left out.

A spring football season was history-making enough. But then, the Keydets won the Southern Conference championship for the first time since 1977, maintained ownership of the Silver Shako trophy after a win over the Citadel, and for the first time

in program history, VMI earned an automatic bid to the NCAA FCS playoffs.

"I couldn't be prouder of the players and the coaches. It's a great feeling and I'm thankful for Gen. Peay and Dr. Dave Diles believing in me after the 0-11 season a few years ago. I'm thankful

See Keydet Football, page 22

Virtual Environment Virginia Draws 350

By Mary Price

The 31st annual Environment Virginia Symposium, sponsored by the VMI Center for Leadership & Ethics, took place March 23–25 in a virtual format. The event, which was canceled in 2020 due to the coronavirus pandemic, attracted approximately 350 attendees this year from a wide variety of backgrounds, among them government, private industry, higher education, and the nonprofit sector.

Topics at this year's symposium included solar farms, environmental justice, the ongoing restoration of the Chesapeake Bay, per- and polyfluoroalkyl substances (PFAS), decarbonizing Virginia's transportation sector, and more.

Virginia Gov. Ralph Northam '81 kicked off the conference Tuesday morning by announcing that earlier that day, he'd signed Executive Order 77, banning the use of single-use plastics by all state agencies, including colleges and universities. The order, which must be obeyed within 120



Maj. Gen. Cedric T. Wins '85 introduces Gov. Ralph Northam '81 during the Environment Virginia Symposium March 23.—VMI Photo by Kelly Nye.

days, includes disposable plastic bags, single-use plastic and polystyrene food service containers, plastic straws and cutlery, and single-use plastic water bottles.

Northam stressed that with approximately 22.5 million tons of waste coming in to the state's landfills and incinerators each year, and recycling programs curtailed in many communities, now is the time to make substantial changes.

"Single-use disposable plastic items in particular pose a severe and growing threat to fish and wildlife and to the health of our Chesapeake Bay," said Northam. "We know the planet will be better off if we stop using

so much plastic. The Commonwealth must and will lead by example."

Northam also took the opportunity to showcase efforts his administration has made toward environmental protection, saying that the state has made "major strides to clean up Virginia's waterways and the Chesapeake Bay."

The bay has benefited from a successful

effort to restore native oyster populations, Northam noted, and Virginia's largest seabird colony now has a permanent home near the Hampton Roads Bridge-Tunnel.

The governor also discussed efforts to fight climate change. In July 2020, Virginia became the first Southern state to join the Regional Greenhouse Gas Initiative (RGGI), a collaborative effort among states in the Northeast and Mid-Atlantic to reduce greenhouse gas emissions from power plants burning fossil fuels. Northam also mentioned Dominion Energy's plan to build an offshore wind farm by 2026 that could power up to 600,000 homes.

Environmental justice was also a focus of the governor's speech, as he mentioned that the Virginia Council on

Continued on next page



Matthew Strickler, Virginia secretary of natural resources, and Bettina Ring, Virginia secretary of agriculture and forestry, participate in a moderated interview with Joe Maroon, executive director of the Virginia Environmental Endowment, during the Environment Virginia Symposium March 24.—VMI Photo by Mary Price.



Retired Rear Adm. Ann C. Phillips speaks on Virginia's efforts to fight sea level rise during the Environment Virginia Symposium March 25.—VMI Photo by Mary Price.

INSTITUTE REPORT

Volume 49, Number 7, May 2021

The Institute Report, VMI's monthly newsletter, publishes eight issues during each academic year. Inquiries, suggestions, news items, and address changes should be directed to Editor, Institute Report, VMI Communications and Marketing, Lexington, VA 24450-0304; (540) 464-7207; or VMIReport@vmi.edu.
© 2021 Virginia Military Institute.

Director Col. Bill Wyatt
Editor Maj. Michelle Ellwood
Assistant Editor Kelly Nye
Designer Robbin Youngblood
Institute Report Staff
H. Lockwood McLaughlin
Eric Moore
Mary Price

Header photo on page 1 by
Kelly Nye

The Virginia Military Institute is committed to providing an environment that emphasizes the dignity and worth of every member of its community and that is free from harassment and discrimination based on race, sex, color, national origin, religion, age, veteran status, sexual orientation, pregnancy, genetic information, against otherwise qualified persons with disabilities, or based on any other status protected by law. In pursuit of this goal, any question of impermissible discrimination on these bases will be addressed with efficiency and energy and in accordance with VMI General Order 16. General Order 90 addresses complaints or reports of retaliation against those who have opposed practices prohibited by General Order 16, those who have filed complaints or reports of prohibited practices, and those who have testified or otherwise participated in enforcement of General Order 16. Questions regarding discrimination prohibited by Title IX of the Education Amendments of 1972, or other federal law, may be referred to the VMI Inspector General and Title IX Coordinator, 212 Carroll Hall, VMI, Lexington, VA 24450, (540) 464-7072. Any cadet or prospective cadet having questions about disability services for students should contact the Director of the Center for Cadet Counseling and Disability Services, 448 Institute Hill, 2nd floor, Post Infirmary, Lexington, Va. 24450, (540) 464-7667. For employment-related disability services, contact the Americans with Disabilities Act Coordinator in the VMI Human Resources Office, Lexington, VA 24450, (540) 464-7322.

The VMI COVID-19 information portal is available at www.vmi.edu/COVID.

Environmental Justice is now a permanent body. Furthermore, last year the General Assembly passed the Uniform Partition of Heirs Property Act, which is meant to ensure that minority and low-income individuals are able to keep the land they've inherited.

Other land conservation steps have included helping the Chickahominy Tribe acquire 105 acres along the James River, and the Virginia Department of Forestry partnering with the Nature Conservancy to protect over 22,000 acres in Southwest Virginia, the largest conservation easement in Virginia history.

"The environment belongs to all of us," Northam said.

The next day, March 24, Matthew Strickler, Virginia secretary of natural resources, participated in a moderated interview with Bettina Ring, Virginia secretary of agriculture and forestry. Leading the interview was Joe Maroon, executive director of the Virginia Environmental Endowment.

Strickler, a graduate of Rockbridge County High School and Washington and Lee University, discussed the challenges of the COVID pandemic, including formulating guidelines for the use of beaches and state parks, which were critical outlets for many people at a time when the state was otherwise locked down.

Ring also noted the surge of interest in outdoor recreation. "People are getting

outdoors more," she commented. "They're enjoying the wonderful parks, the wonderful trails, and the wonderful forests that we have."

Food, too, has been a focus during the pandemic, as many people have begun frequenting farmers' markets or ordering from those markets online. "People started to think more about where their food was coming from," Ring stated.

Asked to discuss the highlights of the Northam administration, which is now in its last year, Strickler mentioned increased funding for water quality, environmental protection, land conservation, and more.

"We weathered the storm of federal roll-backs under the Trump administration and actually strengthened many of Virginia's environmental regulations," said Strickler. "We developed and started implementing the strongest Chesapeake Bay cleanup plan in Virginia's history."

Retired Rear Adm. Ann C. Phillips, special assistant to the governor for coastal adaptation and protection, spoke on Thursday about Virginia's efforts to combat sea level rise from climate change. Phillips began her remarks by emphasizing that what works for urban and suburban coastal communities may not work for rural ones, and that issues of environmental justice must always be considered when formulating plans.

See Environment Virginia, page 9



The VMI herald trumpets play during the Environment Virginia Symposium March 23.—VMI Photo by Kelly Nye.

Correction

In the March issue story entitled "Black Alumni, Faculty Stress Challenges, Growth," Jamaal Walton '07 was incorrectly identified as the the first Black class president at VMI. Anthony Hamilton '79 was the first Black class president at VMI.

Fulbright Recipient Shares Joys, Struggles—and Growth

By Mary Price

Heading off to her English teaching assistant position in the Ivory Coast, Army 1st Lt. Annika Tice '19 thought she knew what to expect: an educational experience, a chance to practice the French she'd worked so hard to learn, and the opportunity to experience a different culture.

What she got was all of those things, but also the stress and anxiety of being an ocean away from a family crisis and a heaping dose of homesickness. Despite these challenges, plus the sudden onset of the COVID-19 pandemic while she was abroad, Tice is grateful for the six months she spent teaching English to middle and high schoolers in the West African nation.

Her time there came thanks to the U.S. Department of State's Fulbright program, which allows Americans to experience the life and culture of another country while teaching or performing research there.

Tice, VMI's first female Fulbright recipient, spoke about her experiences abroad during a Feb. 25 online forum that was attended by approximately 180 members of the VMI community. Tice's talk was part of the Department of Modern Languages and Cultures' "Life After Language" series, which is designed to introduce cadets to the many careers open to those majoring in foreign languages.

Tice began her presentation with an overview of the Fulbright application process, with the goal of encouraging cadets to apply. She stressed

that unlike other well-known scholarship programs, the Fulbright program does not have a grade-point average requirement. "They look at the whole person," she stated. Tice added that she chose Africa because fewer scholarship applicants choose that continent, and the acceptance rate is roughly 50 percent.

In late September 2019, Tice set off for her big adventure. Upon arrival, she quickly began to experience the ups and downs that come with acclimating to a different culture. She recalled loving the abundant and very fresh food, with chicken and fish as the main protein sources, augmented by a delicious mixture of tomatoes and onions in oil.

"People gathered around food," she stated. "Everyone was invited, and there was always enough for everyone."

Language, though, was a different story. After studying French in high school, Tice

had double majored in modern languages and cultures (French) and English at VMI, and she'd taken a study abroad trip to Paris with Lt. Col. Abbey Carrico and Lt. Col. Jeff Kendrick, both associate professors of modern languages and cultures. Going off to the Ivory Coast, a former French colony, Tice was eager to further her language development.

Accustomed to the French spoken in Paris, Tice hadn't counted on the dialect spoken in the Ivory Coast. "I had been to Paris," she explained. "Parisian French is very crisp, very elegant, and very well-understood."

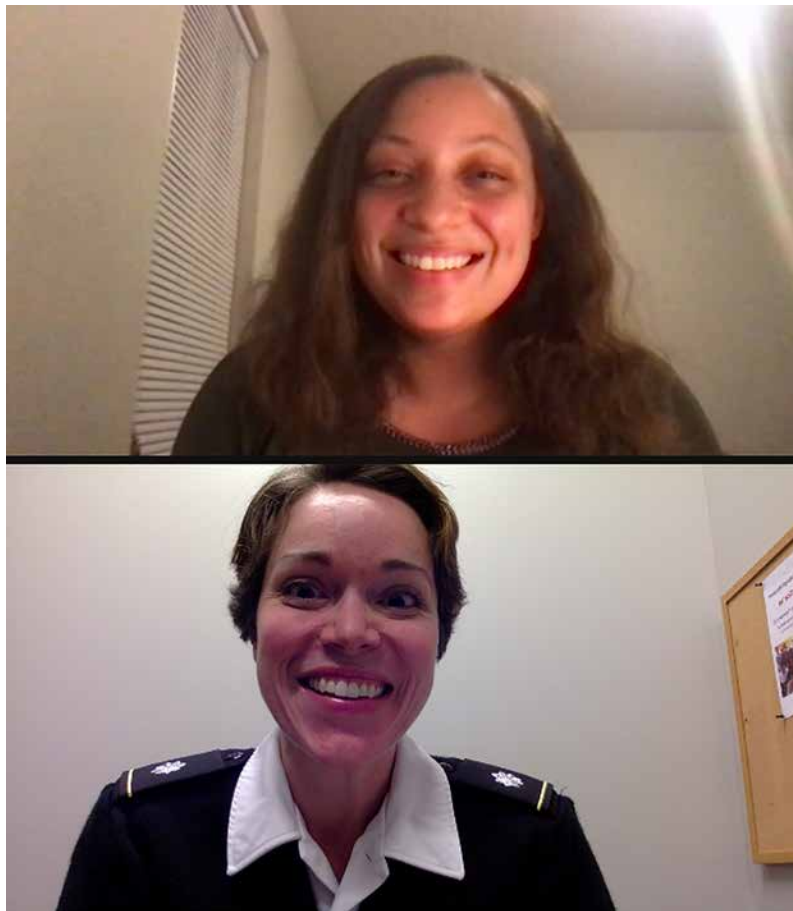
At her school in the city of Yamoussoukro, however, speakers were from different parts of the country, and they all sounded different, especially at first. "Everything would run together, and I couldn't understand," she commented. "I couldn't even understand the children."

Over time, though, her language skills improved, and by the time she returned to the United States, Tice had learned to embrace a phrase she'd heard often, "On est ensemble," or, "We're in it together."

Even at first, though, Tice had no trouble understanding the nickname her students gave her: "La Blanche."

"I spent a lot of time being stared at," Tice stated. "They thought I was white, even though I'm mixed." More commonly, the students just called her "Anna." Not surprisingly, Tice's students already had a rudimentary knowledge of the United States—or at least its more well-known states, such as New York and California. "They know California because that's where everyone wants to go," she commented.

Tice had just arrived in the Ivory Coast when devastating news arrived from home: her father had been diagnosed with brain cancer. To be with him, Tice flew home for both Thanksgiving and Christmas, struggling with a tangle of emotions as she traveled.

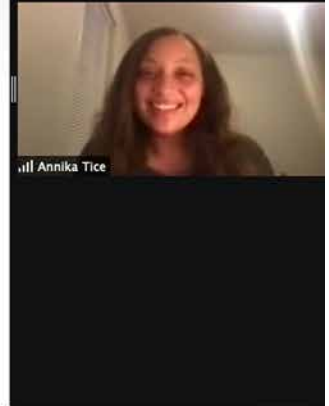


Army 1st Lt. Annika Tice '19 and Lt. Col. Abbey Carrico chat during the "Life After Language" virtual presentation Feb. 25.—VMI Photo by Mary Price.

Continued on next page

VMI Institute Report

WHY THE IVORY COAST?



Army 1st Lt. Annika Tice '19 discusses her time teaching English in the Ivory Coast in a virtual presentation Feb. 25.—VMI Photo by Mary Price.

"I felt defeated when I came home after a few months because I hadn't planned to go home at all," she related. "But also, I had to admit, it was hard for me to find myself within all of this, to be with my cohort, my group."

She didn't go empty-handed: when they learned what was going on, her students made a prayer book for her father, complete with notes written in English. On the return trip to Africa, Tice brought with her some unusual gifts: goggles, swim caps, and kickboards so she could teach the children to swim.

"They had never gotten to work with any of these things, so teaching them how to use those and then letting them have them after we left, that was really cool," she commented.

Despite being surrounded by people—the school where she taught had nearly 5,000 students in grades six through 12—Tice often found herself feeling homesick, and a bit of an outsider among the five other Fulbright recipients.

"I wasn't a partier," she noted. "I didn't want to party. There were a lot of risk-taking situations."

Tice's French language skills came in handy when one of those risk-taking situations went awry. One day, a fellow Fulbright recipient fell from a motorbike and had to go to the hospital. Remembering the French medical words she'd learned in Paris, Tice was able to help the victim get care.

She and some of the other Fulbright recipients also took a trip to Ghana, where they went shopping for fabric to make dresses. "Going in and talking to a tailor in French about what you want—that was a really cool thing," she commented.

Reflecting on how she'd learned language, Tice advised her listeners to pay attention in class, and then be ready to use new vocabulary when the need arises.

"Pay attention to those small [vocabulary] lessons," Tice stated. "Those words pop up." She also reminded her listeners that even a tiny difference in pronunciation can make a huge difference in meaning, so it's important to practice speaking skills as much as possible. "Take those chances," she advised. "Go to [a language] roundtable."

Tice also stressed the importance of getting out of one's comfort zone—which sometimes means leaving the United States.

"These opportunities where you get to travel definitely help your language skills," she commented. "I found that the things that have stuck with me the most are the most practical."

Now that she's had some time to reflect on her experience, Tice is also aware of the importance of self-compassion. She admitted that she'd been frustrated on more than one occasion while abroad, but more and more, she's now taking the attitude of, "I'm here. I'm back. I'm fine, and I have all of these memories."

Today, Tice is serving as a platoon leader for a basic training unit at Fort Jackson, in Columbia, South Carolina. She returned to the United States in February 2020, and her father passed away in July of that year.

"He was so supportive of my travels and only wanted me to continue living out my dreams," Tice wrote in an email. "Although it was difficult to travel back and forth so many times, he was my biggest cheerleader and I will never forget that."

She'll also never forget her experiences abroad—experiences that ranged from being invited to someone's home for a chicken lunch, only to arrive and find the chicken still running around, to having a surprise birthday party thrown for her, with a very large cake delivered on the back of a motorbike. She also treasures memories of participating in a women's march and attending a military ball.

Tice closed out her remarks by encouraging cadets to explore all of the opportunities available to them, even if they think their life paths are set because they're commissioning. For Tice, her path to the Fulbright program began when she attended a seminar for Institute Honors cadets on post-graduate programs.

"If something pops up like that, I'd encourage you to go," she counseled. "Even if you think you won't qualify for something, if you're semi-interested, definitely go out there because you never know what's going to happen." ❄️

New Class Explores Plants and Conflict

By Mary Price

“What I enjoy most about teaching is the learning. With the students, there’s the give and take of trying to teach them what they want to learn. It’s less and less about me and more about them.”

That’s what Col. Anne Alerding, professor of biology, has to say about the approach she’s taking with a new class, *Plants and Conflict*, this semester.

Alerding, a botanist, is well known for her research on soybean cultivars, an area of interest that’s led her and many cadets into farmers’ fields all over Virginia. She’s long been aware, though, of the general attitude among students that plants are boring, and over the years, she’s learned that one way to make them more appealing is to focus on human/plant interactions.

Then, in January 2020, she happened upon a book, *Plants and Human Conflict*, which explores the ways that humans’ dependence on plants for nutrition and pharmaceuticals has led to conflict and often, exploitation of indigenous peoples.

This spring, Alerding and nine cadets, split almost evenly between biology majors and majors in the humanities and social



Emily Wells '23 and Katie Feng '22 present their research on almonds in Col. Anne Alerding’s *Plants and Conflict* class March 19.—VMI Photo by Kelly Nye.

sciences, are exploring how a variety of plants, among them the opium poppy and the banana plant, have led to conflict.

To understand the conflict, cadets must first understand the plant. Alerding begins the study of each plant by giving the cadets a thorough grounding in the physiology of the plant and an understanding of how it’s grown, where it’s grown, and the uses of its products.

“No matter what their major is, on the exam they have to draw the plant, and they have to talk about the biology of the plant and where it grows,” she explained.

Then it’s time to learn about the conflict. In the case of the opium poppy, cadets have learned about the mid-19th-century opium wars between Great Britain and China,

and they’ve also learned why a plant would produce a psychoactive substance. Essentially, the psychoactive compound protects the plant’s seeds, which are needed for reproduction.

Bananas are another example of conflict caused by high demand for a plant product. Alerding described how the United Fruit Company took over nearly 80 percent of the arable land in Central America in the early 20th century, and in December 1928, over 1,000 of the company’s workers were killed by the Colombian military while striking for better working conditions, an event that became known as the Banana Massacre.

“To me, it’s shocking how much people have fought over plant products,” Alerding commented. She added that even today, banana farmers aren’t compensated for the full value of their products, as the fruits are sold by supermarkets at a loss, an intentional strategy because store owners know that customers who come in to buy bananas often purchase additional items.

Class discussions are a time to share what each participant knows about the topic at hand.

“When we have class discussions, [cadets] bring in their knowledge from growing up, from other classes, and I would say that we are always learning,” said Alerding. “I can’t say that I’m always the expert on everything. We’re all learning a lot more than we ever expected.”

One of those learning a lot has been Nathan Martin '22, who signed up for the class because of his interests in environmental science and conservation. “Having



Col. Anne Alerding addresses cadets in her *Plants and Conflict* class in Maury-Brooke Hall March 19.—VMI Photo by Kelly Nye.

Continued on next page

my background in conservation biology, I can better see how different organisms and plants play a role in social and political upheaval and how conservation can influence and affect that for the better,” said Martin.

Psychology major Riane Smith '22 is taking the class along with her roommates, Claudia Distinto '22 and Alexis Wade '22, as she needed another elective and the class sounded interesting.

“The most interesting thing I’ve learned is that bananas are pretty much all the same plant,” said Smith. “There is absolutely no biological diversity because they can’t reproduce.... There is a fungus killing them all at the moment, so we won’t have the bananas we currently eat right now for too many more years.”

The three roommates are doing their group project on quinine, an ingredient in tonic water that has also been used to fight malaria. “I think the main reason we chose this is that we wanted to do something with medicine, and [Wade] just really wanted to do something that’s found in the rainforest because we can use deforestation as a conflict,” Smith commented.



The study of roots and stems, including those of the ginseng plant and beets, is part of Col. Anne Aldering’s Plants and Conflict class.—VMI Photo by Kelly Nye.

Katie Feng '22 and Emily Wells '23 are doing their project on almonds, a California crop that requires large amounts of water. “The large amount of water has caused issues in California because California is constantly in a drought. Therefore, the sustainability is becoming more difficult,” wrote Feng in an email.

Feng also noted how much she’d learned from class discussions about the opium poppy and the banana plant because on the surface, there’s no reason to think either should cause a problem.

“The addiction of the opium from the opium poppy caused two opium wars and millions of deaths,” said Feng, who is doubling majoring in modern languages and cultures (Chinese) and international studies. “The banana plant caused a massacre, and the CIA got involved. I think it is so interesting how one minor little thing can cause worldwide destruction.”

Jonathan M. Daniels '61 Ceremony

Cadets gather in JM Hall on March 3 for a ceremony remembering Jonathan M. Daniels '61, civil rights activist and martyr in the Episcopal church. Three wreath-laying ceremonies were held in order to have smaller gatherings of cadets in each. Col. Bill Wanovich '87, commandant, encouraged cadets to model their lives after Daniels and his selfless actions. After Daniels' death in 1965, Dr. Martin Luther King Jr. said, “One of the most heroic Christian deeds of which I have heard in my entire ministry was performed by Jonathan Daniels.”—VMI Photos by Kelly Nye.



Meredith First Female Regimental Commander

By Mary Price

Thanks to her “shoot for the moon” approach, Kasey Meredith '22 has been named first captain and regimental commander, the highest-ranking position a cadet can earn, for the 2021–22 academic year.

“I always shoot for things that I don’t even know if I can get.”

A native of Johnstown, Pennsylvania, Meredith is an international studies major, with a minor in Spanish. After graduation, she plans to commission into the Marine Corps.

She is the 188th regimental commander and the first female in VMI’s 182-year history to hold the position.

While many members of the VMI community have reached out to congratulate Meredith on becoming the first female regimental commanding officer (RCO), Meredith has stayed focused on the role and the road ahead.

“It’s amazing for the first few minutes, but I don’t want to be the first female RCO,” she commented. “I just want to be the RCO.”

Coming out of high school, Meredith was unsure if college was her best path. She’d long wanted to enlist in the Marine Corps,

but her mother, who’d served in the Navy, urged Meredith to earn a college degree before serving her country.

The family visited several schools, but at VMI, Meredith could see a unique bond and an accompanying set of challenges.

“Coming in through barracks and seeing how the cadets interacted ... I saw that they were so close with each other,” she stated. “There was such a camaraderie.”

There was more than the typical college experience as well—and that appealed to Meredith greatly. “I wanted that unique experience and a hard place to learn from,” she said.

After matriculating, Meredith immediately embraced the Institute’s challenges, earning a Marine Corps scholarship her 3rd Class year and being selected as a color corporal. She also worked to improve her physical fitness, going from being able to do only one pull-up in the fall of her rat year to doing 17 by the spring of her 3rd Class year.

This year, as a 2nd Class cadet, Meredith has served as 1st Battalion sergeant major. At one point, she was considering graduating early so she could begin her military career sooner, but then she decided to graduate with her class and apply for the regimental commander position.

“I need to stay here,” said Meredith. “This is my final opportunity to become a leader at this school and to be ready to commission as an officer. I just have this final opportunity to hone in these skills I’ve learned over the years and become a better leader for the future.”



Maj. Gen. Cedric T. Wins '85 congratulates Kasey Meredith '22, regimental commander for 2021–22, during a March 30 announcement in JM Hall.—VMI Photo by Kelly Nye.



Class President Noah Kirk '22 and rising Regimental Commander Kasey Meredith '22 lead the Class of 2022 in an Old Yell on March 30.—VMI Photo by Kelly Nye.

To be selected as regimental commander, Meredith went through a rigorous interview process, including an individual interview with the then-interim superintendent.

Maj. Gen. Cedric T. Wins '85, superintendent, said that Meredith consistently rose to the top throughout the selection process.

“Cadet Meredith has distinguished herself as a strong leader during her time at VMI,” said Wins. “The regimental commander plays an important role in the development of future leaders. Ms. Meredith embodies the VMI values of honor, integrity, self-discipline, leadership and is well-suited to make a positive impact on the Corps of Cadets. I look forward to watching her take command.”

Going forward, Meredith said her goals for the Corps will include deepening a sense of unity among cadets and devotion to VMI after a year that’s brought the challenges and uncertainty of the coronavirus pandemic.

“I love this school,” she stated. “I love everything about this school and how it makes me a better person, and I just want to continue showing that to the people who are coming in to VMI.”

Continued on next page

Meredith would also like to see the captains of the Institute's NCAA sports teams play a larger role in Corps leadership.

"[Team captain] is such an important role, and I respect them so much that I believe they deserve that respect and the opportunity to lead within the regimental and class side," she said.

Meredith will assume her role as regimental commander at a change of command ceremony in May. She, along with other cadet leaders, will participate in a leadership development program between now and then to prepare them for their new roles.

In addition to Meredith, Robert Hoeft '22 was named executive officer. The Corps will be sectioned into three battalions instead of two,

with Michael Hoffmann '22 as 1st Battalion commander, Max Burke '22 as 2nd Battalion

commander, and Ethan Hogan '22 as 3rd Battalion commander. ✪



Members of the Class of 2022 who will hold captain positions in the Corps for the 2021–22 academic year stand near the parapet wall April 1.—VMI Photo by Kelly Nye.

Environment Virginia *continued from page 3*

To that end, Northam has directed the issuance of a Virginia Coastal Master Plan, the release of which is anticipated in November 2021. That document will guide the Commonwealth's future steps not only in dealing with sea level rise, but also flooding.

Winning the Erchul Environmental Leadership Award for 2021, which recognizes a Virginian who has made significant individual efforts to better our environment, was William A. "Skip" Stiles Jr., executive director of Wetlands Watch, a statewide nonprofit dedicated to protecting wetlands threatened by sea level rise.

The Governor's Environmental Excellence Awards, which recognize successful and innovative efforts that improve Virginia's environment, were presented Thursday afternoon. This



Col. David Gray and Darryl Glover, the 2020 Erchul Award recipient, present William "Skip" Stiles Jr. with the Erchul Environmental Leadership Award during the Environment Virginia Symposium March 25.—VMI Photo by Mary Price.

year's gold medal winners were Freddie Mac, for its sustainability program, and Harrisonburg Public Works, for its Purcell Park Bioreactor Project.

Silver medal winners were the James River National Wildlife Refuge, for its

for providing a habitat for the peregrine falcon; the NASA Goddard Space Flight Center at Wallops Island, for its Goddard Sustainability Program; and the Sky Meadows State Park, for its Sensory Explorers' Trail. ✪

Powell Creek Nature Trail; Newport News Shipbuilding, for its SOAR sustainability program; and Virginia State University, for the Fleet's Branch stream restoration project.

Receiving bronze medal awards were Page County, for its Battle Creek Landfill; Luck Stone's Leesburg plant,

San Remo Returns—Virtually

By Mary Price

After a one-year hiatus due to the coronavirus pandemic, the International Competition on the Law of Armed Conflict returned in a virtual format March 22–25, with six cadets taking part. This simulated conflict scenario requires cadets to advise on specific activities in accordance with international law.

With the exception of 2020, when the sweeping pandemic forced a last-minute cancellation, VMI has sent a team to this event each spring since 2013. Typically held in San Remo, Italy, the competition brings together cadets from military academies around the world to test their knowledge of the applications of international law.

Despite the global nature of the competition, the Institute is no stranger to high placings there: in 2019, Jordan Farmer '19 took fourth place individually and was a member of a mixed international team that took second place, becoming the highest-placed cadet to date, and in 2013, Nicholas Richardson '13 took home the Spirit of San Remo Award, given to the individual who best represents the spirit of international competition. In 2016 and 2018, international teams including VMI cadets placed second in the competition.

This year, there were 18 teams from 13 colleges and universities, representing nine nations. “That was down from past years, and you can chalk that up to COVID and time zone differences,” said Col. Robert “Bob” James Jr., Economics—Mary Moody Northen Chair in international studies and team advisor since 2013. “No one from the Far East or Asia participated, mainly due to time differences.” Maj. Tim Passmore, assistant professor of international studies, joined the team this year as assistant advisor.

Beginning in January, James taught a one-credit class, the Law of International Armed Conflict, to prepare cadets for the competition. Taking the class were the six

cadets on this year’s team, plus team manager Raymond Dua '21.

While understandably disappointed that there would be no trip to Italy, the cadets were still glad for the learning experience that the class and competition provided. Many were recruited by friends who’d taken part in earlier years.

Will Facques '21 learned about the competition from Josh Austin '20, who was slated to be on last year’s team. “He told me it was a good opportunity to learn about international law, which will be very applicable to me in my future career in the military,” said Facques, who will commission into the

Diccianni. “Like, if a ship is a hospital ship, and it’s covered in red crosses, it’s considered untouchable. You can’t attack it.”

Five of this year’s cadets are international studies majors or double majors—but Jonah Eger '21 is not. “For me, this class is kind of stepping outside of my comfort zone because I’m an economics and business major,” he explained.

“I like the challenge of taking on these practical exercises that [James] gives us and searching through the law and finding out how it applies in all of these different circumstances.”

Eger also said that he’d learned a lot in the



Brig. Gen. Robert “Bob” Moreschi observes cadets participating in the International Competition on the Law of Armed Conflict with Col. Robert “Bob” James, team advisor, on March 24.—VMI Photo by Kelly Nye.

Army and serve as a field artillery officer.

Like Facques, Zane Bouregy '21 will commission into the Army, and he signed up for the competition seeking to learn more about international law. “It’ll be good to use the law more practically and see how it’s applied in certain situations,” noted Bouregy, who will serve in the military police.

Matthew Diccianni '21 said he’d learned about the power of symbols on the international stage.

“I’m interested in law generally, but I think the most interesting thing is how symbols carry weight in international law,” said

class. “I didn’t realize the intricacies of international humanitarian law,” he stated.

“War is not necessarily a free-for-all,” he continued. “People kind of misunderstand that. There’s also ways to conduct it in a just way, and for me, that’s the most interesting thing, learning the rules and regulations guiding how we conduct war so we protect innocent lives.”

The virtual format of this year’s competition didn’t stop cadets from connecting with their peers abroad. “I personally was

Continued on next page

VMI Institute Report

in a group with cadets from the Norwegian Air Force Academy and Royal Military Academy at Sandhurst (Great Britain),” said Adam Fodness '21. “Between sharing laughs and jokes about college life to discussions of culture, we found it very easy to connect and share in the online environment.”

Like Fodness, Emma Pratt '21 was paired with British and Norwegian cadets. “What I found that helped most in working with these cadets via Zoom was that any effort at humor is appreciated, even if the context is lost somewhere over the Atlantic,” said Pratt, who is double majoring in international studies and modern languages and cultures (Spanish).

“Keeping an open mind, staying organized, and having a great attitude were characteristics that carried the day for us, even if we didn't win,” Pratt continued. “We still made time to go out to a restaurant virtually afterwards, and I am so thankful to have made such great connections with the other cadets.” ❁



Maj. Tim Passmore joins cadets participating in the International Competition on the Law of Armed Conflict March 24.—VMI Photo by Kelly Nye.

Restored Cannon Fires Up Spring Football

By Mary Price

With the return of the Keydet football team to Alumni Memorial Field at Foster Stadium this spring came the return of a small but mighty piece of artillery well known to generations of football fans: Little John II.

The cannon, which is traditionally fired at kickoff and whenever the Keydets score a touchdown at a home football game, was recently placed on a new, solid mahogany carriage by Steen Cannons. The Ashland, Kentucky, company specializes in the restoration of antique artillery and has done work for VMI in the past. Examples of the company's work on post include the aluminum carriages on which the Cadet Battery now sit and the Parrott rifle and limber located at the entrance to North Post.



Cadets fire Little John II, VMI's celebratory cannon, during the Keydet football team's victory over Furman University Feb. 27.—VMI Photo by H. Lockwood McLaughlin.

A celebratory cannon has been a part of the VMI football scene since 1957, when the Keydets went 9-0-1 under legendary coach John McKenna. Col. Keith Gibson '77, director of the VMI Museum System, explained that the team's many victories under McKenna prompted the cheerleaders of that era to come up with the idea of a cannon.

“Little John' was built by the VMI Physical Plant with, apparently, whatever scrap metal was lying around,” Gibson wrote in an email. The cannon was only used one season before safety concerns forced its retirement.

The next year, though, brought Little John II, which was designed by Col. Cary S. Tucker, who taught electrical engineering and had a deep knowledge of historical artillery. At the time, Tucker had a personal connection to the Corps as well, as his son, Spencer Tucker '59, was a cadet. The younger Tucker, now retired, would go on to become a member of the VMI faculty, teaching in the history department for many years.

A local business assisted with manufacturing the new artillery piece. The Buena Vista Foundry created the brass tube of Little John II out of 100 brass 75mm shell casings. It is a 3/5ths scale replica of a 1750 British howitzer.

Tucker also designed the original wooden carriage in 1958, which was made in the woodworking shops at the Lorton Reformatory in Northern Virginia. At that time, Gibson noted, Lorton Reformatory was making a number of cannon carriages for Civil War sites in preparation for the Civil War centennial.

By the time the second decade of the 21st century was nearing its close, though, the 63-year-old

See Little John, page 12

Little John *continued from page 11*

carriage was showing signs of age, and it was time for a replacement. In January 2020, Little John II was sent off to Kentucky for restoration. The new carriage arrived at VMI in August.

“We have Col. Tucker’s original shop drawings for the carriage, and the drawings were used by Steen Cannons to assure an exact reproduction,” Gibson explained. “While the original carriage may have been repaired once or twice by the VMI Physical Plant shop, the recent rebuild is the first replacement of the entire carriage. All of the original metal parts were used in assembling the new carriage.”

The arrival of the new carriage had been timed with the fall football season in mind. The Southern Conference, though, postponed the season until the spring due to the coronavirus pandemic. And when the time came, Little John II was ready, well-prepared for heavy use during the Keydets’ first winning season since 1981. ❁



Little John II saw its first use in the fall of 1958.—Photo courtesy of Col. Keith Gibson '77.



Little John II now rests on a new mahogany carriage thanks to a restoration job by Steen Cannons.—VMI Photo by H. Lockwood McLaughlin.



Spring FTX

Cadets complete spring Field Training Exercises April 9–13 on and off post. Army ROTC spent the weekend training at the Goshen Boy Scout Camp, while Naval ROTC Marines marched to Sadler Farm in Rockbridge County for an overnight stay. Air Force ROTC utilized the Corps Physical Training Facility, as well as other areas on post. Navy ROTC cadets traveled to Smith Mountain Lake for deep water training and were treated to a lesson from the Lexington Fire Department on post. Non-commissioning cadets worked on community service projects on and off post, including clean up assignments on North Post, at Lime Kiln Theater, and the SPCA. Cadets also volunteered during the Feed the Need Foundation food drive in Natural Bridge.—VMI Photos by Kelly Nye, H. Lockwood McLaughlin, Eric Moore, and courtesy of Naval ROTC.





Mechanical Engineering Project Emphasizes Elephants

By Mary Price

Over the years, Col. Gerald “Jay” Sullivan, professor of mechanical engineering, has been involved in a variety of projects aimed at improving the lives of others. He’s collaborated with Col. James “Jim” Squire, professor of electrical and computer engineering, on the tick rover, a device designed to remove ticks from people’s yards, and also on a seismic detection system aimed at preventing loss of life in a mine collapse.

Now, Sullivan and three 1st Class cadets are in the finishing stages of yet another humanitarian project, this one with the goal of safeguarding farm



Cadets Stephen Moryl '21, Dan Carlson '21, and Calvin Fuller '21 test their dung-burning stove outside Nichols Engineering Building March 26, under the supervision of Maj. Morgan Bruns.—VMI Photo by H. Lockwood McLaughlin.



Cadets Stephen Moryl '21 and Dan Carlson '21 examine the dung-burning stove outside Nichols Engineering Building March 26.—VMI Photo by H. Lockwood McLaughlin.

fields and their owners from marauding elephants in Botswana, a landlocked, predominantly desert country in southwestern Africa. The nation, which is roughly the size of Texas, is home to approximately 330,000 to 350,000 elephants.

The idea for Sullivan’s project first took shape in 2012, when Sullivan and Squire traveled to Botswana to film a documentary about their seismic communication system for the BBC. While there, the two met Dr. Kate Evans, a British biologist and founder of the nonprofit Elephants for Africa. Evans, who has dedicated her career to elephant conservation, told the visiting Americans of the problems male elephants pose in Botswana, as they frequently stray from the conservation areas created for them to wreak havoc on nearby crops.

In a Zoom conversation with Sullivan and cadets Dan Carlson '21, Calvin Fuller '21, and Stephen Moryl '21 earlier this year, Evans described the problems the roaming pachyderms create as they threaten the crops of Botswanan farmers—many of whom are older women whose farm-based livelihoods support an extended family of children and grandchildren. And it’s not just property damage: 72% of those farmers, Evans noted, feel that elephants threaten their safety.

“All of these things have a consequence on welfare and livelihood,” she commented.

Elephants have been a problem for so long, of course, that farmers have learned what works and what doesn’t. Physical fences are nearly useless, as elephants break them down easily, and they quickly learn how to disarm an electric fence. What does work is burning a foul-smelling, irritating mixture of elephant dung and chili powder. But even that burns out overnight, leaving a window of time for the animals to encroach.

Bringing their engineering skills to this problem are Sullivan and the cadets, who’ve designed a laser-based elephant detection system that

amps up the motor on a fan, thus increasing the spread of fumes from the chili/dung mixture.

“Their project is basically about developing a burner that we can modulate,” said Sullivan of the cadets, who are doing the work as their senior capstone project. He added that the major design emphasis has been on creating a system that’s simple to troubleshoot and light to transport, as he hopes to ship the finished product to Botswana this summer and international shipping costs can run into the thousands of dollars.

To create a system capable of detecting an elephant, but not other species, the cadets positioned the lasers so that one would be close to the ground and the other higher up. “Elephants are like 11 feet tall, and we want to make sure we detect an elephant and not a cow,” noted Moryl. When both lasers are blocked by an object, that triggers a set of photo resistors, which in turn trigger the fan attached to a coal-burning stove with the chili/dung mixture resting on a metal plate above.

As of mid-March, that system was working fine, but the cadets had yet to determine how long the fan should run once it’s triggered.

Continued on next page

“That’s going to require a lot of testing to see what works,” said Moryl, who plans to work as a manufacturing engineer for a glass-producing company after graduation.

The cadets built the stove themselves, using a computer-controlled milling machine to cut the steel. The metal is 1/16th of an inch thick to minimize the weight of the finished product. “It’s a lot lighter than you would make if you didn’t have to worry about shipping it,” Sullivan noted.

All three cadets noted that they’d learned a lot, both about animal behavior and the challenges of designing a product to be used in a third-world country.

“It was kind of cool to hear Dr. Evans talk about how smart elephants are and how they’re able to counter all of these farmers’ efforts to deter them,” said Fuller.

Carlson, who will commission into the Navy and attend nuclear power school, mentioned the benefits of a capstone exercise in the senior year.

“This is interesting because it ties together everything we’ve learned,” he stated. “There’s solid mechanics, thermodynamics, and heat and mass analysis due to the coal burning and the heat produced from that. It ties everything together in one project.”

Carlson also noted that the chance to get in the lab and try things was a welcome change after the Institute’s switch to an online-only format last spring made lab work impossible.

“This is the first project since the can crusher two years ago where we actually get to plan out a design and keep making different iterations,” he said.

“Pencil and paper to an actual, physical object is very rewarding to see,” Moryl agreed. “This is a very real-world application. You don’t see a lot of things that are purely mechanical or purely electrical. They’re mostly intertwined.” ❁

VMI Supports Community Vaccination Effort

By Mary Price

VMI has been assisting with setup and staffing of a mass vaccination effort against COVID-19, supporting vaccine administration that started in mid-March at the former Peebles/Gordmans building located in the College Square Shopping Center in Lexington.

The initiative comes as vaccine supply increased nationwide, with a consequent push to deliver vaccines as quickly and efficiently as possible. With this goal in mind, Rockbridge County has leased the former department store building from its owner, Harding & Associates, through the end of June, with an extension possible if needed. The county will apply for FEMA reimbursement for all costs associated with the vaccination center.

With vaccine administration that began Friday, March 12, VMI provided assistance the day before by loaning 20 tables and 150 chairs, along with manpower to set them up. Assisting with this effort were Col. Kevin Faust ’96, deputy commandant for support; Maj. Eric Schwartz ’95, deputy director, Physical Plant; and Larry Camper, chief of maintenance and operations, Physical Plant, along with nearly 10 cadets from the Building BRIDGES service club.

The new location supplements Carilion Rockbridge Community Hospital and the Rockbridge Area Health Center as administration sites for the vaccine, among other local agencies.

Col. Jay Williams Jr. ’83, VMI director of emergency management, praised the quick, cooperative local effort to set up a vaccine clinic, which came together inside of a week.

“It was a total team effort,” said Williams in March, who has been in constant contact with several regional partners over the past year as the COVID-19 situation has evolved. “Everyone, and I mean everyone, stepped up and told Spencer Suter [Rockbridge County administrator] that they stood ready to help in any way. This is what I love about our community. Starting today, our ability to put vaccines in arms is going to take off.”

During the following weeks, some clinics administered up to 1,000 vaccines in a day. Some clinics were designated specifically for college students and other groups. VMI volunteers have helped community members schedule their second doses, pushed wheelchairs, and completed other tasks that allowed these clinics to be so successful. ❁



Building BRIDGES Club members Daminica Moore ’21, Gabriel Goldsmith ’24, and Miles Ortiz ’24 clean up retail displays to prepare for a community vaccination clinic at the former Gordman’s building March 11.—VMI Photo by Kelly Nye.



Cadets Holly Arnold ’22, Miles Ortiz ’24, and Abigail Soyars ’24 prepare for a community vaccination clinic at the former Gordman’s building March 11.—VMI Photo by Kelly Nye.

'Something I Hold as a Privilege'

Shahbaz Finds National Stage in Cross Country

By Eric Moore

Born in Pakistan, Cadet Jahanzib Shahbaz '20 moved to the United States when he was three. He was very athletic growing up, with football being his primary sport in high school. While playing football, Shahbaz joined the track team to stay in shape. It was this first experience with track that sparked Shahbaz's passion for running.

"I started really enjoying it and how competitive it was."

When looking at colleges, Shahbaz was drawn to the challenging atmosphere of VMI. Many athletes in his hometown were considering VMI, and Shahbaz decided to look up the Institute online. He was impressed with the kinds of experiences cadets were having, and he thought it would be the challenge he was looking for.

"I chose VMI because it was so unique. I knew I didn't want an ordinary experience."

At VMI, Shahbaz had the chance to join the cross country and track teams. While he had experience running track, Shahbaz had never run cross country before.

"I ended up running my first cross country meet for VMI. I think I finished pretty close to last. I was young and was just happy getting used to the experience."

As Shahbaz, a fifth-year cadet, puts it, something happened that first year of cross country where his hunger for the sport grew exponentially. He finished low-ranked his first season, but Shahbaz became determined to improve and become a better runner. He went into his sophomore year season with optimism and excitement, and he ran much faster.

"I'm not going to let my team down. It's not going to be because I didn't work hard enough."

In the fall of 2018, Shahbaz redshirted and did not compete. Though he wasn't competing, Shahbaz threw himself into learning as much as he could about proper training and diet.

"You gotta know the sport, so I learned a lot about the sport."

His hard work showed up his junior year, where he placed high and found much success.



Jahanzib Shahbaz '20 competes in the Southern Conference Cross Country Championship in Macon, Georgia, on Nov. 21, 2020.—Photo courtesy of the Southern Conference.

The coronavirus pandemic, however, created a new challenge for Shahbaz. Sent back home to Northern Virginia, with an extended amount of time on his hands, Shahbaz debated how he wanted to train. Some runners he knew had decided to take a break, but Shahbaz decided to use his time at home to practice and improve. In fact, his intentions were to win the conference.

"I want to be the best, and to be the best you have to compete against the best. Not only that, I get to represent VMI at that stage, and that's something I hold

as a privilege."

His success extends to performances at recent indoor track events. Competing in January, he broke the national Pakistani record in the 3,000-meter with a time of 8:12 to shatter the national mark of 8:30. When reflecting upon all his successes, Shahbaz is thankful for his teammates and coaches for their support and encouragement.

"I really learned how to work hard from the older runners. They took me out running, and they were patient. ... My coaches have always been looking out for me. They're key."

Shahbaz is also very encouraged by the support he's received from alumni. In addition to cheering him on, alumni have offered training advice and have even helped him pace his runs.

"When the alumni reach out to me, that means a lot. I don't think that would happen at another school. ... Here, I'm always getting encouragement and advice from alumni."

As Shahbaz, a civil engineering major, approaches graduation, he is considering working full time in engineering or running while in graduate school. A dual citizen of Pakistan, one of his biggest goals is to represent Pakistan at the national level in running. No matter what he ends up doing, Shahbaz is thankful for his time at VMI and knows it has prepared him to succeed in running and in life. 🌟



Jahanzib Shahbaz '20

dedication to the Institute's mission and to the Corps of Cadets has endeared him to many during his brief time as interim superintendent," said John William Boland '73, president of the VMI Board of Visitors. "VMI's mission, Honor Code, and regimental and class systems are vitally important to the future success of our institution. There's no question that Maj. Gen. Wins is the right person to preserve and advance VMI's unique system of education moving forward."

During his time as interim superintendent, Wins focused on the cadet experience. Ever since his arrival, he's been a visible presence on post, eating dinner in Crozet Hall with cadets, attending home sporting events, and visiting with cadets and ROTC staff during spring field training exercises and other activities.

In addition, Wins has guided the Institute through the pandemic with a commitment to provide cadets with a VMI experience that is as normal as possible. This semester, nearly 86 percent of classes have been offered through in-person or hybrid instruction, and the Institute has successfully conducted many key VMI experiences such as Ring Figure, Breakout, spring FTX, and athletic competitions. Additionally, deposits for fall 2021 matriculants are running nearly 4% ahead of last year, which was a record year.

Gene Scott '80, chair of VMI's Superintendent Search Committee and a member of the Board of Visitors, said that the committee left no stone unturned in its search for VMI's next superintendent.

"VMI is synonymous with leadership. So when an opportunity to lead an organization like VMI opens up, there is no shortage of interest," Scott said. "Our candidate pool was very strong from the outset of the search. Maj. Gen. Wins distinguished himself as a frontrunner through his experience as a military leader and innovator. His ability to communicate a vision for the development of leaders of character and the future of the Institute set him apart from others."

Wins spent much of the first three months of his tenure as VMI's interim superintendent conducting an assessment of the culture, policies, and procedures currently



Maj. Gen. Cedric T. Wins '85

in place. As a result of this process, he has identified five outcomes for the Institute moving forward:

1. Honor. The VMI Honor Code must continue to be a way of life for each and every cadet and alumnus.
2. Diversity and inclusion. VMI must ensure that every cadet, regardless of race, gender, religion, or nationality, feels a part of the VMI legacy.
3. The VMI brand. The outward face of VMI should be built around young leaders of character who exemplify honor, civility, and service above self.
4. Competing and winning. VMI cadets must compete to win in the classroom, on the drill field, and on the field of competition.
5. One VMI. VMI's strength is in its diversity of experiences, thought, abilities, and backgrounds. No single cadet's challenge is greater than another's. It is through the reliance on their fellow cadets that the Corps succeeds.

"Over the past six months, Maj. Gen. Wins has brought a fresh perspective and a new

enthusiasm to the challenges that the Institute faces today. There's no question that the future of VMI is very bright with Maj. Gen. Wins at the helm," said Board of Visitors and Superintendent Search Committee member Lara Tyler Chambers '03.

In his final Army command, Wins was the first commanding general of the U.S. Army Combat Capabilities Development Command. During his years of service, he also held many other leadership and staff assignments, including in Headquarters Department of the Army and the Joint Staff at the Pentagon.

His awards include the Distinguished Service Medal (with one oak leaf cluster), the Defense Superior Service Medal, the Legion of Merit (with one oak leaf cluster), and the Bronze Star Medal. He holds two master's degrees, one in management from the Florida Institute of Technology and one in national security and strategic studies from the National War College.

During his time as a cadet, Wins was a standout basketball player who finished his career as one of the top five scorers in school history. Over his four years at VMI, Wins helped lead the team from last place in the Southern Conference to the Southern Conference finals during his 1st Class year. In 1985, he graduated with a bachelor of arts in economics and commissioned into the Army as a field artillery officer.

"If someone had told me a year ago that today I'd be the superintendent of my alma mater, I would have told them they were crazy," Wins said. "However, the interactions that I've had over the past six months with VMI's outstanding cadets and dedicated faculty have been some of the most rewarding interactions of my career."

The fact of the matter is I believe in the honor, integrity, civility, and sacrifice that we instill in our cadets. I'm excited to once again be a part of that and am looking forward to leading this next chapter of the Institute's history." ❁

Robotics Team Earns Highest Placing to Date

By Mary Price

“If you can use your people, you can solve any problem that gets thrown your way for sure.”

That’s what Eric Munro ’21, project manager, had to say about his team’s success in the IEEE Region III Hardware Competition, held as part of IEEE Southeast Con 2021. The annual student robotics competition, which this year challenged teams to create a

Pac-Man style game, has been ongoing for several decades, and VMI has sent a team each year since 2002. This year’s event, scheduled to be in Atlanta, Georgia, was moved online due to the coronavirus pandemic.

Despite the challenges of the pandemic, plus a massive hardware failure the night before the competition, a team of 21 cadets, most majoring in electrical and computer engineering (ECE), earned VMI’s highest placings in the competition in almost two decades of participation, taking first place in the design competition, plus winning the T-shirt competition. They also got second place in the hardware competition.

The VMI team finished second among nine teams in the overall competition, just behind Clemson University, a school with just over 20,000 undergraduates. “We usually finish in the top one third, but only once before have we finished in the top three, and this is the first time we’ve finished second,” said Col. James “Jim” Squire, professor of electrical and computer engineering and coach of many IEEE teams.

Squire added that while VMI requires all ECE majors in their 1st Class year to participate as part of their capstone senior project, teams from other schools are self-selected—thus upping the challenge.

“I couldn’t be more proud of these [cadets],” said Col. Thomas “Tom” McCormick, assistant professor of electrical and computer engineering, who is now in his fourth year of coaching the IEEE team. “I’m extremely proud of what they’ve done. They designed this thing and built this thing all on their own and did it in such a professional manner. They really made my job very, very easy. Certainly all of the credit goes to them.”

With Munro leading the way, the cadets began their work in the spring of 2020, with the ECE majors supported by two mechanical



Jared Anter '21 and Eric Munro '21 prepare their Pac-Man robot for competition in mid-March.—VMI Photo by Kelly Nye.

engineering majors and one computer and information sciences major.

Even as the pandemic kept them away from one another, they were busy reading the rules, which are released one year in advance of the competition, and learning from the Class of 2020. Members of that class encountered the heartbreak of having the IEEE competition canceled as they were en route to it last spring, yet they reached out to the next class, offering insights as to what worked and what didn't.

“It gave us a base to build on,” said Garner Fleming '21, who led the budget and administration team. Now, members of this year’s team have returned the favor before they graduate, in the form

of a mentorship meeting with ECE majors in the Class of 2022.

“[The Class of 2020] did their best to set us up for success and now we pay it forward,” said Munro before the meeting.

This year’s challenge involved the classic Pac-Man game, but in three dimensions on a wooden board, not a computer screen.

As in the arcade game, the robot had to navigate a maze with multiple right-angle corners, avoid ghosts, and also had to pick up power pellets via an extendable arm.

“Just like in the game Pac-Man, if your robot hits a ghost, they’re penalized,” explained Brahn Kush '21, who designed the winning T-shirt and also worked on the budget and administration team. Kush expressed relief that the rules were changed midway through so the ghosts would not be moving, as they do in the classic game. “That made it a little bit easier,” he said.

Scoring was based on how many power pellets the robot could retrieve and bring back to the home base, with points deducted for each ghost encounter.

One of the major challenges was the small size of the robot, which this year had to fit within a 7 x 7 x 7 inch cube. “It’s not the biggest robot, but it had to be able to do a lot,” Munro commented.

The cadets were in the midst of working on their robot last fall when their ability to work together was suddenly challenged: cadets were sent home before Thanksgiving, with a return to post scheduled for mid-January. Just stopping for two months was out of the question, so they had to improvise.

Luckily, Jared Anter '21, head of the hardware team, could find a way around the problem. During the summer and winter breaks from VMI, Anter had been working for New London Technology in Lynchburg, a business that specializes in two-way radios, and he

Continued on next page

knew that Mark Glahn, owner of that firm, had supported several robotics teams in the past.

“I asked him if it would be all right if our capstone just moved all of our equipment down to his shop, and continue to work on the weekends, and he said ‘yes,’” Anter related. “We would meet on weekends to work on the robot, with an average of about five cadets working. One weekend we had over half of the major show up.”

The two months between cadets’ return to post and the competition flew by, and by Friday, March 12, all systems seemed to be approaching “go.” That night, they decided to do some last-minute navigational tweaks.

“We did a routine power cycle—turned on the robot and uploaded a new version of the program to it—and turned off the robot—and we turned it back on to let it do its thing,” said Munro. “But it didn’t do its thing. It just sat there.”

To his horror, Munro discovered upon investigation that two thirds of the robot’s code was missing. At that point, Munro admitted he went into shock, while Kevin Yang ’21, assistant project manager, began to see what he could do to restore the missing code. Soon, the robot’s handlers had called in Willem Sciandra ’21, their computer science consultant.

Arriving around midnight, Sciandra gave an 80 to 90 percent chance of code recovery—and

within an hour, he’d discovered a backup copy of the operating system code.

“This is why I’m going to be a proponent of interdisciplinary teams my entire career,” said Munro. “If [Sciandra] wasn’t there, I don’t know what would have happened.”

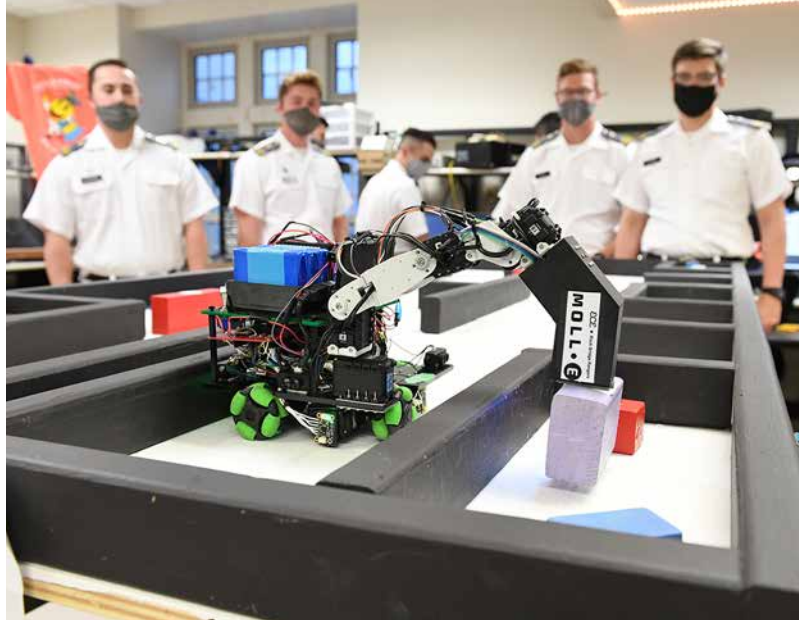
Nearly all of the cadets expressed gratitude for the support of their teammates and the need to integrate diverse skill sets on a project such as this.

“I think the main thing capstone teaches is being able to work within a small subteam that’s part of a larger team,” said Bennett Smith ’21, a member of the software team. “You have to work and co-

ordinate with other teams so your piece of the puzzle fits in with theirs.”

Experiences such as the capstone, Fleming noted, prepare cadets well for the workforce, in which engineers are part of an interconnected web.

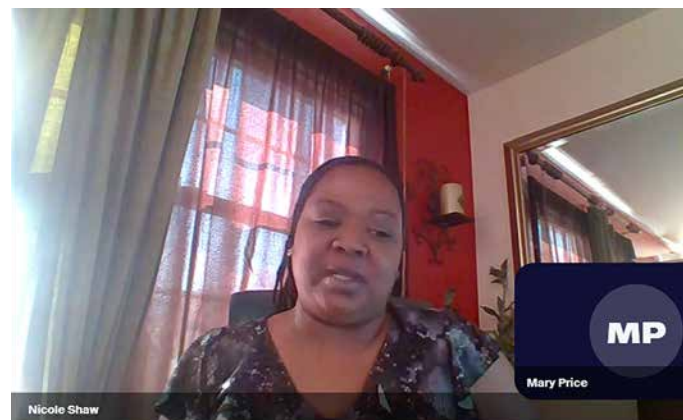
“You may be an electrical engineer, but you’re going to depend on a mechanical engineer, people in the budget department, and people in all departments to get what you need done,” he stated. ✪



Cadets in this year’s electrical and computer engineering capstone course observe the robot they created pick up a power pellet.—VMI Photo by Kelly Nye.

Spring Career Fair

Bill Parker, human resources specialist with the U.S. Small Business Administration, and Nicole Shaw, program coordinator with the Virginia Space Grant Consortium, were among several presenters at the Spring Career Fair, which was held online via Handshake March 15. Approximately 215 cadets and more than 30 employers from a wide range of industries participated in the fair.—VMI Photos by Mary Price.



Chaplains' Dedication to Corps Combines New and Old

By Mary Price

The VMI chaplains' office is always a busy place, as both Col. Robert "Bob" Phillips '87 and Maj. John Casper '04 are constantly responding to the needs of cadets and fielding phone calls from families. This year, though, there's been an additional duty of keeping tabs on cadets in isolation or quarantine, followed by a large but happy annual task: ordering books to be given as gifts to graduating cadets and making sure each cadet gets the book he or she requested.

In mid-February, as the number of cadets needing to be isolated or quarantined due to COVID-19 reached the hundreds, Casper found himself working seven days a week making a late-afternoon video call via Microsoft Teams to check in on cadets. By late April, only a handful of cadets were sequestered from their peers, so Casper was able to check in with them individually via email and/or text.

What's called a welfare and wellness check allows Casper to find out how cadets are doing and relay any needs to the appropriate individuals on post—and it also allows cadets to see each other virtually and chat among themselves.

"It's a morale boost for them because they get to see who else is in quarantine," Casper noted in February.

The cadets have an opportunity to get an update from Casper about how many are in isolation or in quarantine. While on the call, Casper often would read the most updated statistics from the Institute's internal spreadsheet, which is maintained throughout the day.

Four hotels north of Lexington have been used as extra housing for cadets in isolation or quarantine. While there have been some hiccups with things such as WiFi in the hotels and delayed meal deliveries, overall there have been few problems there, according to Casper.

"For the most part, morale is good," he commented. "Cadets are very resilient."



Maj. John Casper '04 places a video call to cadets quarantined and isolated due to COVID-19 in mid-February.—VMI Photo by Mary Price.

Phillips has also been doing his part to check on cadets in isolation and quarantine, those on post and those in hotels, by making in-person visits.

"They'll open the door, and I'll step back and just check and see how they're doing," he stated.

Last fall, before VMI's COVID-19 cases went up significantly, Phillips's wife, Tracy Phillips, teamed up with others in a massive effort to provide each cadet in isolation or quarantine with four home-baked cookies, along with other treats, in a goodie bag distributed each Friday afternoon.

Support for this project came from the Interservice Christian Fellowship, the Navigators, and Grace Presbyterian Church, among others.

"She was making 800 to 900 cookies a week," Bob Phillips said of his wife.

But even the double oven in the chaplain's house couldn't keep up when cadet numbers rose to 400, as they did by mid-February.

"It would be 1,600 cookies a week, and that's a lot of cookies," Phillips noted. "We just couldn't sustain it this semester."

The chaplains, have, though, been able to sustain their outreach to the Corps. The regularly scheduled Sunday night chapel service has been ongoing this semester, with socially distanced seating, and both Casper and Phillips report a higher-than-usual level of cadet attendance.

Like the Sunday night services, ordering a book for each graduating cadet is a regular part of the rhythm of the ac-

ademic year in the chaplains' office, and by mid-April, the office resembles a bookstore or library, with cardboard boxes of books everywhere one looks.

The tradition of giving a Bible to each graduating cadet began with the Institute's first graduating class, which graduated on July 4, 1842, and was initiated by VMI's first superintendent, Maj. Gen. Francis H. Smith.

"About a month before the graduation date ... that had been designated, Francis Smith writes a letter to Richmond asking that he would need, in addition to

Continued on next page



Stacks of books sit in the chaplain's office in April awaiting distribution at graduation.—VMI Photo by Mary Price.

the diplomas that everyone expected, he would need 16 pocket-sized, Morocco leather bound, gold-edged Bibles,” Col. Keith Gibson ’77, director of the VMI Museum System, explained in a recent news interview.

Today, the books are paid for by private donations—and cadets choose from a list of 11 titles. Choices include four Protestant translations of the Bible, a Catholic translation, the Book of Mormon, the Qur’an, the Torah, and *A Buddhist Bible*. Cadets who prefer a book with no religious affiliation may choose either a hardback journal or *The Words of George C. Marshall*.

Choosing a book of one’s own is also an option. “And if there is a cadet who said, ‘Hey, I come from a particular faith group that is not represented in any of the choices,’ then we would buy a book for them,” said Phillips.

For Mary Cannon, office administrator, helping with the books is a labor of love. “It’s a last gift for graduating cadets,” she said.

Using a spreadsheet, Cannon keeps track of cadet book requests. This spring, approximately 350 cadets are expected to graduate—thus the cardboard boxes of books filling every nook and cranny on the second floor of the old Post Hospital. Over the past five years, approximately 78% of cadets have requested a Bible, while 16% have asked for a non-religious book, and 6% have requested a book of another major world religion.

For those requesting a Bible, Cannon stamps the inside front cover with a Bible verse, Luke 22:32, often inscribed by hand in those early cadet Bibles: “I have prayed for thee, that thy faith fail not.”

The 19th century tradition of presenting a book at graduation was revived

approximately 40 years ago by then-Chaplain Charles Caudill, who created a book presentation ceremony held prior to commencement. Since 1980, over 12,000 books have been presented, and today, the books are handed to graduates as they cross the stage during the graduation ceremony.

Phillips, who received a Bible from Caudill himself at graduation, has added his own twist to the tradition by writing a personal note in each Bible presented to cadets, even the ones he doesn’t know.

“People don’t throw Bibles away,” Phillips said in a recent interview. “People hold onto Bibles. Somewhere along the line, 100 years from now, someone’s going to open that Bible and they’re going to see that little note of encouragement or that scripture verse, and they’re going to say: ‘I don’t know who this Phillips guy was, but this scripture line is helpful to me.’” ❀

Trauma Expert Shares How to ‘Widen the Window’

By Mary Price

Speaking virtually to an audience of cadets, faculty, and staff, Army veteran and trauma researcher Dr. Elizabeth Stanley discussed resilient leadership and the need to “widen the window” to recover from trauma in a March 11 talk.

Stanley, a professor of security studies at Georgetown University, began by telling her audience that she was “Exhibit A” of what she teaches and writes about, in that she has experienced and recovered from significant stress, trauma, and post-traumatic stress disorder (PTSD).

Coming from a ninth-generation military family, Stanley experienced the effects of untreated PTSD among her family members as a child and was then sexually assaulted in high school. She was sexually harassed while serving as an Army intelligence officer and eventually became a whistleblower. Through all of these experiences, she took an attitude of “suck it up and power on,” going on to earn degrees from Harvard University, Yale, and MIT.

But this level of academic achievement came at a very high cost, as Stanley’s physical and mental symptoms of chronic infections, insomnia, depression, and PTSD were mounting.



Author and Army veteran Dr. Elizabeth Stanley speaks on stress, trauma, and resilience March 11. —VMI Photo by Mary Price.

“By the time I got to graduate school, my system was just done,” she noted. Eventually, Stanley became temporarily blind as a result of optic neuritis, and that was the “hit the wall” experience which drove her to create a program for recovery, Mindfulness-based Mind Fitness Training,

and write a 2019 book, *Widen the Window: Training Your Brain and Body to Thrive During Stress and Recover from Trauma*.

The pillars of Stanley’s recovery plan include getting at least eight hours of

sleep each night, eating a healthy diet, exercising consistently, and practicing mindfulness.

To help her listeners understand the biology of the brain, Stanley gave an overview of what she calls the “thinking brain” or neocortex, which is responsible for rational thought, self-awareness, language, and ethics, and the “survival brain,” which is made up of the limbic brain, responsible for emotions and memory, and the reptilian brain, which

oversees bodily functions.

While the thinking brain plans and executes, the survival brain takes on the task of neuroception, or assessing threats. Undergirding all of this is an individual’s

See Stanley, page 23

Keydet Football *continued from page 1*

for Maj. Gen. Wins because we win with Wins,” said Scott Wachenheim, head football coach.

It was a special season for fans and alumni as well. The last time VMI won the SoCon title was more than 20 years before most current cadets were born. The eight-game spring schedule ended with the Keydets finishing 6-1—the first game planned for Feb. 20 against Chattanooga was postponed.

As the excitement remained strong after the season ended against the Citadel, players, coaches, and staff joined together in Marshall Hall the next morning to learn their fate in the FCS. It was announced that VMI was to play James Madison University April 24 in Harrisonburg. The playoff opponent was no stranger, as the teams, less than an hour's drive apart, have played each other 13 times since 1982, and the last time meeting was in 2009. JMU finished its regular season 5-0.

With less than 7,000 people in the stands due to COVID regulations, VMI's season came to a close in Harrisonburg, losing to #1 JMU by only a touchdown, 31-24.



Maj. Gen. Cedric T. Wins '85 holds the Silver Shako aloft after the Keydets beat the Citadel 31-17.—VMI Photo by H. Lockwood McLaughlin.

Wachenheim believes the Keydets' success is rooted in their shared struggle.

“This team has the most talent since I've been here. This team loves each other and that can't be overstated,” he continued. “They truly love each other and they hold each other accountable. They stand strong and firm during the darkest times, and they work with a great attitude. They've dodged all the curveballs that COVID has thrown us this past year, and they back each other up. That's what has made this team special.”

That bond was apparent all season long, with wins over Furman, Mercer, Wofford, Western Carolina, and Samford. Fans actively paid attention, especially as several of the games were come-from-behind victories, and the game against Samford went into overtime. The only loss was to East Tennessee State, with the Keydets on top until the fourth quarter, putting the SoCon title on delay.

And while the events of 2020 and 2021 have many people dreading any more surprises, a nice surprise came to defensive lineman Jordan Ward '21 before practice March 11. Jerry Acuff '71, president of the VMI Keydet Club and chairman of the board for the VMI Alumni Agencies,



Offensive lineman Marshall Gill '22 drenches Coach Scott Wachenheim after the team won the SoCon title.—VMI Photo by H. Lockwood McLaughlin.

Continued on next page

announced Ward as the 2021 recipient of the Three-Legged Stool award. This annual recognition by the VMI Keydet Club is given to a 1st Class cadet-athlete who best exemplifies the three aspects of the VMI education: athletics, academics, and military. Ward is a mechanical engineering major, a football team captain, and vice president of the Honor Court. He proudly wears number 0 on the field, the first Keydet football player to do so.

Ward and his teammates clearly adjusted well to having very small crowds to cheer them on at each competition. The season started out with no tickets being sold due to a Virginia executive order focused on event venue capacity. A few weeks later, though, at the April 17 game against the Citadel, the cheers were loud with a sell-out, 3,000-person crowd.

No executive order ever put a capacity on the pride and excitement of the loyal VMI Keydet fan base. And this team has given fans plenty to look forward to in the future. ✪



Jordan Ward '21 receives the Three-Legged Stool award from Jerry Acuff '71 as Dr. David Diles and Maj. Gen. Cedric T. Wins '85 look on March 11.—VMI Photo by Kelly Nye.

Stanley *continued from page 21*

window of tolerance, which is determined to some extent by early childhood experiences.

“People with wider windows are much more tolerant of uncertainty, much better able to flow with change or unexpected curveballs, much better about keeping connected to others during stress,” said Stanley.

Outside that window lie stress, trauma, and PTSD, which exist along a continuum and develop when the thinking brain and survival brain aren’t working together well.

“Trauma happens if the survival brain has turned stress on so it’s perceived something about the current situation is threatening or challenging, but then it also perceives us to be helpless, powerless, and lacking control,” Stanley explained.

The key to recovery is realizing that there are almost always choices in how to react to any given situation.

“When we can access choice, we have agency, and when we can access choice, our survival brain is much less likely to feel helpless or powerless or lacking control,” Stanley commented.

Window widening requires active participation on the part of the individual. “The way that we widen our window is by experiencing stress, significant stress that takes us out of our comfort zone, and then having a complete recovery,” Stanley stated.

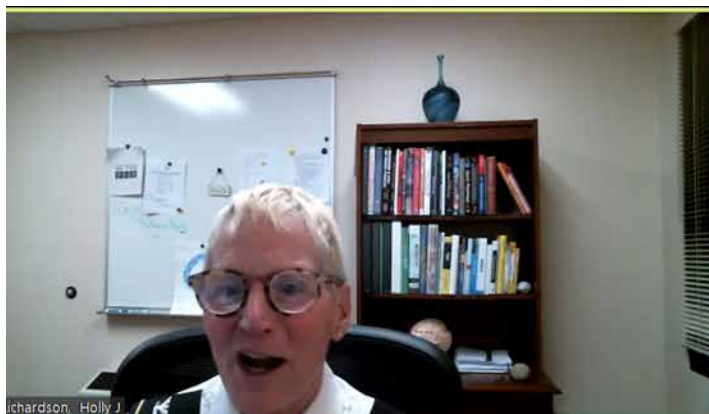
Throughout her remarks, Stanley stressed that because human beings are interconnected and dependent on each

other, how we experience stress and trauma will have far-reaching impacts on those around us.

“My passion for training people to better regulate their own stress and emotions comes from having personally faced a lot of violence and trauma in toxic organizations, where the leaders themselves were very distributed and stressed out,” she commented.

“Your individual resilience, or your lack of resilience, as leaders, as teachers, as clinicians, it has a profound effect on the resilience of others around you, and on the collective resilience of VMI.”

Stanley’s talk was funded by a Jackson-Hope New Directions in Teaching and Research grant. ✪



Col. Holly Richardson introduces Dr. Elizabeth Stanley during her virtual presentation March 11.—VMI Photo by Mary Price.





Virginia Military Institute
Communications & Marketing Office
Lexington, VA 24450-0304

Nonprofit Org
US Postage
PAID
Waynesboro, VA
Permit 129



First Parade of Spring Semester

Maj. Gen. Cedric T. Wins '85 took review of his first parade as interim superintendent on Saturday, March 27. Parades that were scheduled earlier in the semester had been canceled.—VMI Photos by H. Lockwood McLaughlin.



Connect with VMI

 facebook.com/vmi1839

 [@vmi1839](https://twitter.com/vmi1839)

 [@virginia_military_institute](https://instagram.com/virginia_military_institute)

 vminews.tumblr.com

Additional photos and videos can be found on Flickr and YouTube.