

West Point

WINTER 2020

West Point's Newest
Academic Majors:

Space Science

Applied Statistics and Data Science



A Publication of the West Point Association of Graduates



Friends and Family Program

***Do you know
someone
who is
moving?***



**Across Town, Across the Country or
Around the World... We Can Help.**



USMA '77
Jeff Hetherington
Executive Vice President
jeff.hetherington@c21nm.com
571.200.7520
c21nm.com

USMA '85
Todd Hetherington
CEO/Broker-Owner
todd@c21nm.com
703.922.4010



21 Locations in the D.C. Metro Area
We know the experts in every market.
REAL ESTATE | MORTGAGE | TITLE | INSURANCE



©2019 Copyright CENTURY 21 New Millennium. Each Office Is Independently
Owned And Operated. Equal Housing Opportunity. Equal Housing Lender.

thank you!



West Point
ASSOCIATION OF GRADUATES

Throughout the year, you may be asked to contribute to the following funds, each of which supports the Academy and WPAOG in important ways. *Please accept our deepest gratitude for your support.*

***Superintendent's and West Point
Parents Fund***

unrestricted funds for cadets and the Academy

Long Gray Line

unrestricted funds for WPAOG alumni programs

Army A Club

unrestricted funds for intercollegiate athletics

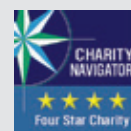
Class Gift Funds

restricted by classes in reunion campaigns

Other Restricted Funds

restricted for specific programs

**MARGIN OF
EXCELLENCE**



**We look forward to seeing our Superintendent's Circle and Chairman's Circle
members at Donor Tribute Day on April 30, 2020.**

West Point

VOLUME 10, ISSUE 1 • WINTER 2020

The mission of *West Point* magazine is to tell the West Point story and strengthen the grip of the Long Gray Line.

PUBLISHER

West Point Association of Graduates
Todd A. Browne '85, President & CEO

EDITOR IN CHIEF

Elizabeth A. Barrett
editor@wpaog.org

ASSOCIATE EDITOR

Keith J. Hamel

EDITORIAL ADVISORY GROUP

Kim McDermott '87 Terence Sinkfield '99
Patrick Ortland '82 Samantha Soper

ADVERTISING

Jess Scheuler
845.446.1577 | ads@wpaog.org

ADDRESS UPDATES

West Point Association of Graduates
ATTN: Data Services Team
698 Mills Road, West Point, NY 10996-1607
845.446.1644 | address@wpaog.org

MEMORIAL ARTICLE MANAGER

Marilee Meyer
845.446.1545 | memorials@wpaog.org

CONTENT

Keith Hamel Erika Norton
Kim McDermott '87

DESIGN

Marguerite Smith Owens

Opinions expressed in this magazine are those of the authors and do not necessarily reflect the opinions, policy, or attitude of the U.S. Army, United States Military Academy, West Point Association of Graduates, its officers, or the editorial staff. The appearance of advertisements in this publication does not necessarily constitute an endorsement by the U.S. Army, United States Military Academy, West Point Association of Graduates, its officers, or the editorial staff for the products or services advertised.

POSTMASTER

West Point is published quarterly in Winter, Spring, Summer and Fall by the West Point Association of Graduates, 698 Mills Road, West Point, NY 10996-1607.

West Point is printed by Sheridan NH.

SUBSCRIPTIONS

Subscriptions may be ordered for \$25 (domestic mail) online at WestPointAOG.org; by calling 800.BE.A.GRAD; or by sending a check to WPAOG, *West Point* magazine, 698 Mills Road, West Point, NY 10996-1607. (International shipping incurs additional fees; please inquire.)

ON THE COVER: In a pre-ignition check prior to launch, Chase Lewis '21, a cadet from the Space Engineering Applied Research project (SPEAR) removes the retaining pins between the first and second stages of a 17-foot rocket built by Operation Space, a student-run organization working to launch a rocket capable of reaching the Kármán line, the internationally accepted boundary between Earth and outer space. Story on page 6. Photo: MAJ Jill Rahon '06.

FROM THE PRESIDENT

Dear Fellow Graduates:

As we reflect on our yearlong 150th Anniversary celebration "Honoring the Past, Preparing for the Future" and the various ways in which this milestone was celebrated, including from the International Space Station, we are certain that the bonds of the Long Gray Line will endure for the next 150 years.

To reflect the Long Gray Line's ethos of service and culture of philanthropy, and to further deepen and enhance the network of lifelong relationships among the Long Gray Line, the process to develop the 2030 Strategic Plan began in the spring of 2019. The creation of the Strategic Plan was a comprehensive, collaborative and integrated process that brought together alumni, staff, and outside industry experts in the areas of data analytics, communications, and alumni operations, particularly specializing in human-centered design. It was also informed by the USMA Strategic Plan.

During the next 10 years we will continue to unlock the power of the Long Gray Line to advance the complementary parts of our mission: to **Serve the Long Gray Line** and to **Serve West Point**.

We will serve the Long Gray Line by making alumni experiences at West Point meaningful, exciting, and fun; by facilitating alumni access to expertise and other resources within the Long Gray Line; by developing services for volunteer leaders; and by deploying the next generation of WPAOG's communications services.

We will serve West Point by supporting the Margin of Excellence and by inspiring cadets to become lifelong, active members of the Long Gray Line. We will support USMA with professional and construction services, and we will explore the feasibility of a Hudson Valley Project to the benefit of the Academy and returning alumni.

We will provide for WPAOG's future by assessing our mission performance, continuing to develop WPAOG's gift stewardship into a "best in class" program, establish a culture of data-informed decision-making, and continue to achieve the highest data surety standards. As keepers of the legacy of the Long Gray Line, we will preserve, organize, and display the service record of the Long Gray Line.

As we head toward Founders Day season, my team and I look forward to engaging with you on the topic of the 2030 Strategic Plan. We will push out links to the full plan across various communications channels in the near future.

To inspire the Corp of Cadets, in 2019 we presented the 62nd annual Sylvanus Thayer Award to General Ann Dunwoody, the first woman in U.S. military history to achieve the rank of four-star general. Like all Thayer Award recipients before her, General Dunwoody trooped the line with the Superintendent during a review of the Corps of Cadets assembled in formation on the Plain in her honor. "You looked fantastic," she later told the cadets during her acceptance speech, "and as I look out in the audience now, I see the faces of the future leadership of our U.S. Army." Two weeks later, we brought back one of the Army's young leaders, Captain Lindsay Heisler '12, and bestowed upon her the 2019 Alexander R. Nininger Award for Valor at Arms in recognition of her actions that resulted in receipt of the Distinguished Flying Cross. You can read about both of these worthy award recipients in this issue.

We also hosted nine reunions last fall, with more than 5,000 grads and guests returning to their Rockbound Highland Home. Finally, we threw the most anticipated event of the year: the annual Army-Navy Tailgate. Held in the newly remodeled Wells Fargo Center in Philadelphia, this event clearly showed everyone what we've known for the last 150 years; that, whatever the outcome of the legendary Army-Navy game, the bonds of the Long Gray Line are unshakeable throughout time.

Serving West Point and the Long Gray Line,

Todd

Todd A. Browne '85
President and CEO
West Point Association of Graduates





ADVERTISERS

Army Residence Community	25
Balfour	45
Battle Monument Group	29
Century 21	C2
Central Intelligence Agency	5
Class of 1969 Salutes the Class of 2019	29
Eisenhower Hall	59
The Fairfax	51
Herff Jones	19
Military One Source	13
SACC	25
USAA	11, C3

IN THIS ISSUE | WEST POINT'S NEWEST ACADEMIC MAJORS

6 COVER STORY The Study of Space Expands with USMA's New Space Science Major

USMA's new Space Science major combines Aerospace Engineering, Astrophysics and Plasma Physics in a way that is unique in undergraduate education today.

12 Cadets Aim to take SPEAR to Space

14 How West Point Approves a New Academic Major

16 Tsunami at West Point

A little known West Point legend tells of a 1961 tsunami on the Hudson. One cadet's independent research project set out to uncover the facts.

20 General Ann Dunwoody Receives 2019 Thayer Award

22 Investigating and Interpreting Data: USMA's New Applied Statistics and Data Science Major

The Army's need for data scientists and statisticians has skyrocketed, and West Point's newest major, Applied Statistics and Data Science, aims to help meet that demand.

26 Cadets Need to Go on at Least One AIAD

30 2019 Nininger Award: Captain Lindsay Gordon Heisler '12

34 "Leading a Felt Life": General Martin Dempsey '74 Delivers 2019 Zengerle Lecture

36 The World as Classroom: G&EnE Revives the Geology Field Course

USMA's Physical Geology course celebrated its 50 year anniversary in 2019, and faculty found an innovative way to revive the popular Geology Field Course in partnership with USAFA.

40 Army-Navy Weekend 2019

44 Class of 2020 Branch Night

46 West Point Parachute Team: Where Astronauts Learn to Fly

54 Stories in Stone: WPAOG's Brick and Paver Program

55 WPAOG's Enhanced Career Services Marks Highly Successful First Year

DEPARTMENTS

2 From the President

4 From the Superintendent

32 Poster: "Fame" at Sunset

45 Mailbox

50 Gripping Hands

52 West Point Bookshelf

56 WPAOG News

58 Parents Corner

59 Start the Days

60 Be Thou at Peace

61 WPAOG Military Retiree Recognition Program

62 Past in Review

“We are off to a fantastic and action-packed second semester as our cadets returned to post ready to pursue excellence as they develop into the Army’s future leaders of character.”



To the Long Gray Line:

I hope you and your families had a safe and happy holiday season. We are off to a fantastic and action-packed second semester as our cadets returned to post ready to pursue excellence as they develop into the Army’s future leaders of character.

Last month, senior leaders gathered in Washington, DC for the Army Profession Forum,

where Secretary McCarthy and General McConville emphasized the Army’s priorities of readiness, modernization, reform, and, above all, people. People—our Army’s greatest strength and most important weapon system—is how we will fight and win on 21st century battlefields.

In support of the “People First” effort, the Army published the Army People Strategy, a roadmap to acquire, develop, employ, and retain the diverse Soldier and civilian talent necessary to achieve Total Force readiness by building professional, cohesive teams. This strategy ensures we have “the right people, in the right place, at the right time...[to] successfully deploy, fight and win in multi-domain operations...and who will provide us with the enduring advantage to remain the world’s most ready, lethal and capable land combat force.”

As one of the Army’s commissioning sources, and as our nation’s preeminent leader development institution, West Point has a major role in this strategy’s execution through five lines of effort: Develop Leaders of Character; Cultivate a Culture of Character Growth; Build Diverse, Effective, and Winning Teams; Modernize, Sustain and Secure; and Strengthen Partnerships.

Our Admissions team, including those of you in the Field Force, directly support Army efforts to **acquire talent**, as we identify and recruit the high-quality and diverse “clay” to mold into our Army’s future leadership. Our talent acquisition efforts not only supply successive cohorts of the Long Gray Line, we also share information on candidates who did not receive a USMA offer with Army Cadet Command and Army Recruiting Command.

The heart of our mission, **talent development**, through our leader development model, equips cadets with the academic, military, physical, and leadership skills, within a culture of character growth, necessary to build cohesive and winning teams. We also retain and develop the talented officers who return to West Point to serve on our staff and faculty. In addition to earning advanced degrees prior to their USMA assignment, our “second graduating class” also receives substantial professional development opportunities before returning to the

operational force to take on senior leadership roles with increased levels of responsibility.

The core of Army efforts to **employ talent** is a modern talent management system that aligns individual talents with the needs of the Army. As part of that overall effort, the Army introduced a new talent-based branch selection and assignment process that the Class of 2020 piloted for the Army during last fall’s Branch Week. Instead of the old model that relied primarily on Order of Merit List (OML) ranking, the new “Market Model” system is data-driven, relying on talent assessments and providing branch commandants an active voice and vote in the assignment process. Cadets saw favorable results: we increased combat arms (including Cyber) allocations from 75 to 80 percent and 88 percent of cadets received their top branch choice (up 11 percent from the previous year), with more than 60 percent of cadets being perfect matches with their branches. Talent-based branching supports Army transformation from the industrial age to the information age.

We also support efforts to **retain talent** through the branching process, whereby cadets have the opportunity to incur an additional service obligation in exchange for increasing the odds of receiving their branch of choice. Members of our staff and faculty also remain in uniform for the opportunity to serve at West Point.

Our long-term modernization efforts to bring our infrastructure and capabilities into the 21st century will also bolster Army efforts to acquire, develop and retain talent.

With the People Strategy as a guide, we will continually improve our efforts to develop the future Army leaders who will fight and win in crucible of ground combat. It is my honor to lead the USMA team at this important inflection point in our nation’s history.

Finally, please join me in congratulating Colonel Mark Bieger ’91 for his outstanding leadership as the USMA Chief of Staff, as he retires after 28 years of dedicated service to our Army. Over the past two years, Mark spearheaded many of the initiatives that improved USMA’s readiness and relevance which postured us to support the Army’s priorities. We wish Mark and his wife Amy all the best in the next chapter of their lives.

Of course, none of this is possible without your support, and I truly appreciate all you do for the Academy. Together, we will continue to develop leaders of character who live honorably, lead honorably, demonstrate excellence, and are ready to fight and win, anywhere, anytime.

Darryl Williams ’83
Lieutenant General, U.S. Army
60th Superintendent, U.S. Military Academy

DECISIVE PRINCIPLED VERSATILE

TRANSITION FROM YOUR LIFE IN SPECIAL OPERATIONS TO PARAMILITARY OPERATIONS WITH THE CIA.

With your special operations training, you've proven that you'll push yourself to the limit in defending what makes our country great. Now, we're inviting you to go beyond – to serve our nation's interests as a Paramilitary Operations Officer or Specialized Skills Officer with the CIA's Directorate of Operations. You'll conduct intelligence activities globally using your significant combat and leadership experience in Special Operations or Combat Arms (Infantry and Aviation).

Every company has a mission statement. Some are just more meaningful than others.



cia.gov/careers

Successful candidates for this position may be eligible for a one-time hiring bonus of up to 25% of their base pay.

An equal opportunity employer and a drug-free workforce.



The Study of Space Expands with USMA's New Space Science Major

By Keith J. Hamel, WPAOG staff

When asked about the new Space Science major at West Point, which will graduate its first cohort of cadets in the spring of 2020, Lieutenant Colonel Diana Loucks, an Academy Professor and the Director of the Space and Missile Defense Command Research and Analysis Center in the Department of Physics and Nuclear Engineering (PaNE), begins by saying, "Space has always been a part of West Point." She is absolutely right.

Above left: In spring 2019, Operation Space, of which USMA's SPEAR team was a crucial part, launched its student-built rocket at Spaceport America in New Mexico. **Above right:** Class of 2021 CDT Joshua Siemiaczko spends time in the observatory above Bartlett Hall as part of his research into solar flares and whether they can be predicted ahead of time.

Between the classes of 1950 to 1998, the Academy has produced 21 astronauts, including Colonel Drew Morgan '98 MD, who is currently serving aboard the International Space Station. Dozens of other graduates from numerous West Point classes—such as Edmund O'Conner '43JUN, Raymond Clark '45, Henry Clements '53 and Alfred Davidson III '57—have gone on to work for the National Aeronautics and Space Administration (NASA), providing services and ground support for U.S. space missions. And even a century before space flight, West Point was an important part of research involving space: William H.C. Bartlett, Class of 1826, Professor of Natural and Experimental Philosophy at the U.S. Military Academy, for example, built the first observatory at West Point in 1841 and used its equipment to perceive the orbit of the Comet of 1843 and photograph, for the first time in history, a partial solar eclipse on May 26, 1854.

According to Loucks, the idea for “methodizing” the Academy’s long involvement with space began in 2009. Before that, the Advanced Physics major, the longest standing major within PaNE, had a single course, *PH472: Space and Astrophysics*, that attempted to do everything in one term that the department is now doing with its Space Science major. That course began with orbital mechanics, moved onto planets and tides, and concluded with a section on solar evolution. Today, the Space Science major, which was approved by the Dean’s Office in fall 2016, consists of four space-specific classes, plus a combination of Physics, Electrical Engineering, and Geography and Environmental Engineering courses. Sequentially, the first Space Science course a cadet pursuing the major takes is *SP471: Astronautics*. This course tackles the orbital mechanics lessons

“Aerospace engineering exists at the undergraduate level at other institutions, so does astrophysics and plasma physics, but the combination of all these different subjects is something being done at West Point and nowhere else.”

—LTC Diana Loucks

of the original space course and instructs cadets about spacecrafts and launch planning subcomponents. *SP472: Space Physics* is next. This course examines the various environments found in the solar system, focusing particularly on Earth-Sun interactions. Taught for the first time in fall 2019, the third course, *SP473: Astronomy*, begins with telescopes and lenses and moves to how scientists learn about space from the observations they are making. Finally, there is *SP474: Astrophysics*, which used to be the stellar evolution portion of the original space course, with lessons starting with the birth of a star and continuing through supernova and the resulting black hole (or neutron star). “USMA is unique in the way it shaped its Space Science major,” says Loucks. “Aerospace engineering exists at the undergraduate level at other institutions, so does astrophysics and plasma physics, but the combination of all these different subjects is something being done at West Point and nowhere else.”



LTC Diana Loucks, Academy Professor, involves her students in *Astronautics*, a gateway course for cadets seeking a role in America’s space programs. Loucks is Director of the Space and Missile Defense Command Research and Analysis Center in the Department of Physics and Nuclear Engineering.

Those majoring in Space Science have a number of research projects in place, most of which pre-date the major, on which they can work to reinforce the lessons they are learning in class. In 2007-08, the Department of Electrical Engineering and Computer Science (EECS) developed the Black Knight satellite, a 1U (10mm x 10mm x 10mm) CubeSat designed to give cadets operational knowledge and experience with satellite development and design. Black Knight-1 was one of 29 research satellites launched aboard a Minotaur 1 rocket on November 20, 2013, with a mission to demonstrate an experimental passive attitude control and dampening system and to transmit digital pictures back to Earth while in orbit. One year later, Loucks, Dr. Paula Fekete (an Associate Professor with PaNE and officer in charge for the Astronomy Club), and then-Major Stephen Hamilton '98 (an instructor with EECS and officer in charge of the HAM Radio Club) came up with the idea to do balloon satellites. "Given that this happens through the Astronomy Club, balloon satellites give cadets in all departments across the Academy the chance to play with space and to make space happen," says Loucks. In April 2018, the balloon they launched reached a peak altitude of 119,000 feet, which remains a club record. A number of Academy research projects have found their way onto the balloon satellite's payload. "In our last launch, which was our 10th overall, we had a radiation detection payload, we had the initial stages of a station-keeping payload—controlling where you are in altitude and direction—weather sensors, and our first ever Pi-cam," says Loucks. Some of the newer research projects Space Science majors can work on include space radiation testing, which began in 2018 and involves placing single-board computers into accelerators, and

assured position-navigation-timing research, which uses a software-designed receiver called SkyDel to simulate GPS signals, and cadets can use these signals to test everything from operational impacts to the way that atmospheric physics affect the signals themselves. The newest research project is SPEAR (see page 12), which tangentially touches nearly all the other research projects mentioned.

“Just like the universe itself, the field of space science is only going to expand in the future.”

—LTC Diana Loucks

Now that PaNE has the Space Science major, more and more equipment related to space is finding a home at West Point. Back in 2009, just around the time Loucks and others were starting to talk seriously about having a Space Science major in PaNE, the EECS department had ordered an EyaSat, which is marketed as “a fully functional nanosatellite designed for teaching spacecraft systems engineering in the classroom and laboratory,” to support training for their Black Knight satellite. “Now that we have the major, I am excited about introducing this technology to cadets so that they can see and grasp all the various parts and systems needed for space flight, such as a gyro wheel, a magnetorquer, the thermal subsystem, etc.,” says Loucks. The major also has a suite of telescopes, binoculars, optics systems,

Left: CDT Brandon Cea '21, founder of the SPEAR Project, presents his Space Science work in Bartlett Hall at Projects Day in May 2019.

Right: CDTs Anastasia Osborne '22 and Jared Hudspeth '21 present their Space Science research at Projects Day in May 2019.





Cadet SPEAR (Space Engineering and Applied Research Project) team leader presenting IPR briefing to team members.

filters and cameras so that cadets, working in groups, can conduct remote sensing. The cadets also have access to computer stations that go with the telescopes. While no cadet has identified an unknown orbiting body or named a newfound nebula at this time, the laboratory at the West Point observatory is set up in a way that any one of them potentially can make a “galactic” discovery someday.

In addition to its exciting equipment, the Space Science major has new opportunities available for its cadets. One of these is the Army Space Cadre Basic Course, taught by a mobile training team from the U.S. Army Space and Missile Defense Command (SMDC). Occurring at West Point right after Memorial Day, this two-week, two-phase course provides a basic knowledge of space capabilities and how they enable the warfighter. According to SMDC’s Public Affairs Office, “The course focuses on space capabilities, limitations and vulnerabilities in the context of full spectrum operations as well as military operations in an environment where space capabilities are degraded or contested.” Those Space Science majors who complete the course receive the 3Y skill identifier, commonly known as the “space cadre,” upon their graduation from West Point. They also receive the Space Badge upon graduation. Another opportunity in the works for Space Science majors is the Assured Functional Area Transfer program. Those cadets who select this program have a guarantee from the Army that if they want to transition to a career in space at their four-year mark, they will receive a Functional Area 40 (FA40) or “Space Operations Officer” designation with no additional service obligation required. According to Mike Connolly, Director, USASMD/ARSTRAT Army Space Personnel Development



Right: Atop Bartlett Hall, Astronomy Club cadets utilize telescopes purchased with Department of Cadet Activities Margin of Excellence funds. Red lighting protects their night vision. Every spring the club performs a high altitude balloon mission, also funded by DCA. They are able to gather atmospheric data and imagery as their balloon rises to 100,000 feet.

Office, “FA40 officers serve in operating and generating force positions supporting the Army and unified action partners that focus on delivering space capabilities to the warfighter today, as well as developing and integrating space capabilities for the future.”

“Just like the universe itself, the field of space science is only going to expand in the future,” says Loucks. Referencing FA40 officers, Loucks notes that when she came to the Academy in 2009, there were only some 150 officers or so tied to space operations; a decade later there are around 350. And now there’s the “Space Force,” which at the time of writing of this article was still in the proposal stage* but operating as the U.S. Space Command, a division within the Department of Defense that was reestablished on August 29, 2019 (it was originally established in 1985 and merged with U.S. Strategic Command following the terrorist attacks of September 11, 2001). During Branch Week 2019, the 1st Space Brigade out of Fort Carson, Colorado visited West Point, and its leadership (Colonel Eric Little, Brigade Commander, and Command Sergeant Major Robert Bell, Brigade Command Sergeant Major) addressed the Space Science majors about the rapidly changing operations of the Space Brigade. “Our cadets are learning about space as space is happening,” says Loucks. These developments ensure that space will continue to be a part of West Point—a significant part. ★

**On December 20, 2019, President Trump officially launched the U.S. Space Force, the sixth branch of the U.S. Armed Services, and the first new military service since the Air Force was created in 1947. It will protect U.S. assets such as satellites used for communication and surveillance. It will fall under the U.S. Air Force, but after one year will have its own representation on the Joint Chiefs of Staff. The Space Force will build on the work of the existing U.S. Space Command (SpaceCom), which was created in August 2019 to handle the U.S. military's space operations.*



A cadet in Louck’s SP471: Astronautics course displays where she has visited and where she hopes to go plastered on her computer.

Space Science Major Course Outline

FOURTH CLASS		THIRD CLASS		SECOND CLASS		FIRST CLASS	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
CH101 Chemistry	PH205 Physics 1	PH206 Physics 2	SS202 Pol. Science	PL300 Military Leadership	SS307 Intl. Relations	PH456 Science & Policy	LW403 Law
EN101 English	EN102 English	SS201 Econ.	PY201 Philosophy	3 Course Engineering Sequence			MX400 Officership
MA103 Intro To Calculus	MA104 Calculus 1	MA205 Calculus 2	MA364 Engineer Math	PH Elective PH365 or PH381	PH384 Optics	PH485 Lasers	EV478 Mil. Geospatial Operations
HI10 US History	HI10 Regional History	L203 Language	L204 Language	PH382 Electro Dynamics	EE301 Elec. Eng.	HI302 Military Art	EV377 Remote Sensing
IT105 Info. Tech.	PL100 Psych.	MA206 Prob & Stat	EV203 Geography	SP471 Astronautics	SP472 Space Physics	SP473 Astronomy	SP474 Astro Physics

■ Directed Energy
 ■ Missile Defense
 ■ Cyber Operations
 ■ Policy Development
 ■ Space Science



I SERVED FOR

my family's safety

USAA members who bundled Auto and Home Insurance saved over \$589 million combined in a single year.¹ Bundle today to help protect what matters to you and what you have worked so hard to build. With USAA insurance, enjoy an unrivaled level of service because we know what it means to serve.

JOIN USAA TODAY AND GET A QUOTE.

CALL 877-584-9724 OR VISIT [USAA.COM/WPAOG](https://usaa.com/WPAOG)



USAA is proud to be the
Preferred Provider
of Financial Services for the
West Point Association of Graduates

WE RESERVE THE RIGHT TO REFUSE TO QUOTE ANY INDIVIDUAL A PREMIUM RATE FOR THE INSURANCE ADVERTISED HEREIN. ¹Savings figure based on 2018 savings earned when members combined USAA auto and home insurance products. Multiple product savings do not apply in all states or to all situations. Savings subject to change. Restrictions apply.

Use of the term "member" or "membership" refers to membership in USAA Membership Services and does not convey any legal or ownership rights in USAA. Restrictions apply and are subject to change. Property and casualty insurance provided by United Services Automobile Association, USAA Casualty Insurance Company, USAA General Indemnity Company, Garrison Property and Casualty Insurance Company, based in San Antonio, TX; USAA Limited (UK) and USAA S.A. (Europe) and is available only to persons eligible for P&C group membership. Each company has sole financial responsibility for its own products. West Point Association of Graduates receives financial support from USAA for this sponsorship. © 2020 USAA. 251249-0120-WPAOG



Cadets Aim to take SPEAR to Space

By Keith J. Hamel, WPAOG staff



CDTs Chase Lewis, Hannah Boubel, and Brandon Cea (kneeling L to R), all Class of 2021, and MAJ Jill Rahon '06 (back row) pose with the other members of Operation Space from Duke and Princeton Universities who traveled to Spaceport America in New Mexico in spring 2019 to launch a rocket that they hoped would reach the Kármán line.

When a couple of cadets learned that the Academy had a new Space Science major, they reacted as most students might: "Let's build rockets!" In 2018, Cadet Brandon Cea '21 and a group of cadets approached the Department of Physics and Nuclear Engineering (PaNE) about this idea, but the Academy had no club, team, or academic project available to turn their passion into a reality. "Still," says Colonel Peter Chapman '98, Program Director for PaNE's Core Curriculum, "if a cadet is interested in something, and it has Army applications and great potential for academic development, we couldn't say 'no.'" Thus, approximately one year ago, PaNE established SPEAR, or the "SPace Engineering and Applied Research" project.

In its inaugural year, SPEAR teamed up with Operation Space, an international student-run organization (40-plus students from more than 25 universities across the United States and Canada) focused on launching a rocket capable of reaching the Kármán line, the internationally accepted boundary between Earth's atmosphere and outer space, located 100 kilometers (330,000 feet) above sea level. Prior to SPEAR's founding, Cea had learned about Operation Space from a friend at another academic institution, and it ignited his and his peers' imagination to work on rockets. "They were going to do it anyway," says Captain David Fobar '10. "We just wanted to ensure that they went about it the right way, looking at their goal from an operational perspective." This is particularly prudent, given that one of the things cadets brought to Operation Space was the ability to ignite the booster during flight. "We made sure they understood how to handle the solid rocket fuel and ignition charge and to store them properly, knew about the volume requirements, and the equipment needed to transport everything safely," says Fobar.

While faculty might steer the expectations for SPEAR, the project is ultimately cadet driven. "It is entirely cadet organized," says Chapman. "They recruited the team; they set their objectives." Interestingly, most



CDT Chase Lewis '21, the technical lead for SPEAR, installs a cap over the custom ignition system he designed for the rocket.

cadets involved with SPEAR are not Space Science majors. The project is truly interdisciplinary, with cadets coming from a variety of USMA academic departments, including PaNE, Civil and Mechanical Engineering, Chemistry and Life Science, Systems Engineering, and Electrical Engineering and Computer Science. Some of them worked on rocket design, some on the launch platform, some on payload, some on flight control, and some on propellant principles.

In May 2019, Dr. David Hutchinson and Major Jill Rahon '06, assistant professors with PaNE, took a group of SPEAR cadets to Spaceport America in New Mexico, adjacent to U.S. Army's White Sands Missile Range, to participate in Operation Space's attempt to traverse the Kármán line. On May 31, its first 17-foot rocket cleared the tower and ignited its second stage but lost a fin and broke apart around 100,000 feet. On June 1, Operation Space launched a second rocket that made it approximately 85 percent of the way into space.

Going forward, SPEAR's objective is to design and build its own rocket. "Ultimately," says Chapman, "the goal is to design and test a low-cost method for delivering small payloads into lower Earth orbit." In pursuing this goal, SPEAR will serve as an umbrella for all of the Academy's interdisciplinary space-related projects. It will also serve as a time-delayed talent management system for the United States' future space endeavors. "SPEAR cadets will graduate having worked on a significant national problem, perhaps having made some small advance," says Chapman. "So, when it comes time for them to transfer into the space operations community, they'll be technically savvy and can begin contributing immediately on a higher plane." ★



CDTs Cea (L), Boubel, and Lewis, all Class of 2021, work on their rocket's ignition system in a trailer at the Spaceport America launch site.

**WHEN YOU'RE BOOSTING
YOUR BUDDY, YOU CAN'T
THINK ABOUT BOOSTING
YOUR MOOD.**

BUT WE CAN.

**Personal wellness coaching
is just the beginning.**

Military OneSource offers free 24/7 support to connect you to resources and services you can use to make the most of your military life.


**Stress relief tools • Relationship counseling
Document translation • Financial counseling
Fitness coaching & more**

**Start today.
Call or click anytime – we're here to help.**



**MILITARY
ONESOURCE**

MilitaryOneSource.Mil/all-the-ways | 800-342-9647



“All the majors at West Point are designed to provide every cadet with a skill set that is going to help them both immediately and in the long term.”

—Dr. Rachel Sondheimer, Vice Dean for Academic Affairs

How West Point Approves a New Academic Major

By **Keith J. Hamel**, WPAOG staff

In the spring of 1983, the Department of the Army approved the U.S. Military Academy's proposal to allow cadets the option of pursuing an academic major. The cadets of the Class of 1985 were the first allowed to use the electives in their program of study (32 core courses, 12 electives in academic year 1983-84) to take courses to a depth sufficient to allow a degree in one of 16 designated majors, and 50 percent of the class elected to do so. Today, the Academy offers 36 majors, and completing an academic major is now a graduation requirement for all cadets.

West Point recently added two new majors of study to its academic curriculum: the Department of Physics and Nuclear Engineering added a Space Science major in the fall of 2016, which was first offered to cadets in the Class of 2020; and the Department of Mathematical Sciences had its Applied Statistics and Data Science major approved in December 2018, and it was first offered to cadets in the Class of 2022.

The path to a new major at West Point begins at the department level. "It begins as an informal vetting process," says Dr. Rachel Sondheimer, Vice Dean for Academic Affairs. According to Sondheimer, faculty members are constantly floating ideas off one another, and they are the best source for the initiation of new majors. West Point's unique blend of Army officers and Title 10 civilian professors on its faculty fosters deep discussions of what is operationally happening in the Army and academic trends in higher education. "Everything we do academically at West Point has one eye toward higher ed and one eye toward the needs of the Army," says Sondheimer. Those ideas that survive vetting at the department level move to the Dean's Office. The few that do, Sondheimer notes, have significant department resources invested in them. "They have been vetted very seriously prior to making the submission," she says.

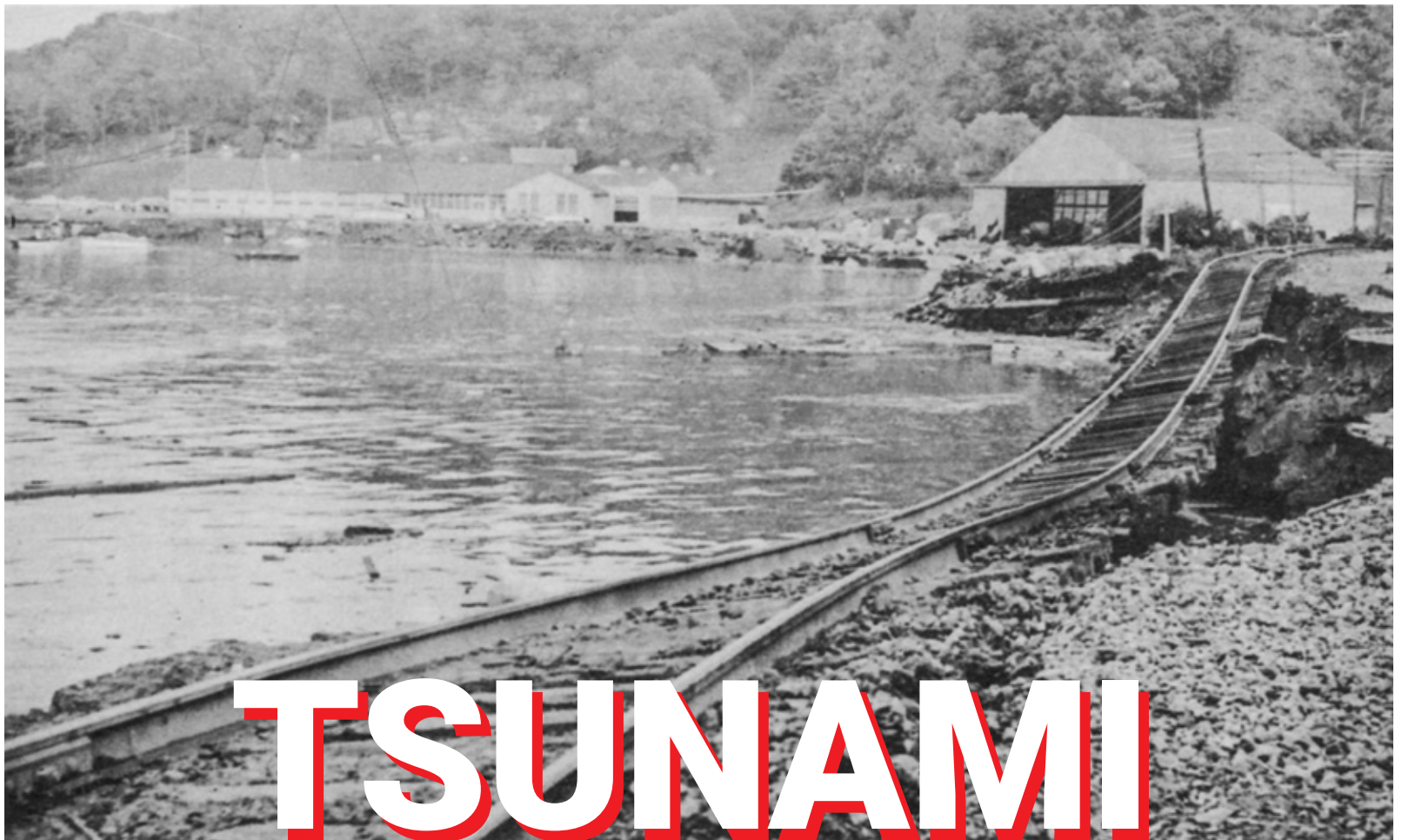
The next step in approving a major is the Curriculum Committee. Currently consisting of 10 voting faculty members, the Curriculum Committee generally meets once per week during the school year to consider curricular change proposals submitted by academic departments. According to Dr. Rebecca Jones-Kellogg, Associate Dean for Curriculum and Assessment, departments provide extensive benchmarking to justify the need for a new major. Materials presented include assessments showing cadet demand, sample syllabi for new courses, and reports showing requirements for the proposed major at other institutions. "The committee then does a very comprehensive review, examining in particular how the proposed major would fit into our existing curriculum, what resources it would need, and ultimately why it is needed at West Point," Jones-Kellogg says. Majority-plus-one

support is needed from the Curriculum Committee to move the process to the next level; but, if it does not pass, the Curriculum Committee will always offer an explanation as to why—for example, redundancy (what is the value added beyond what is already in place?)—and the department can submit its proposal again.

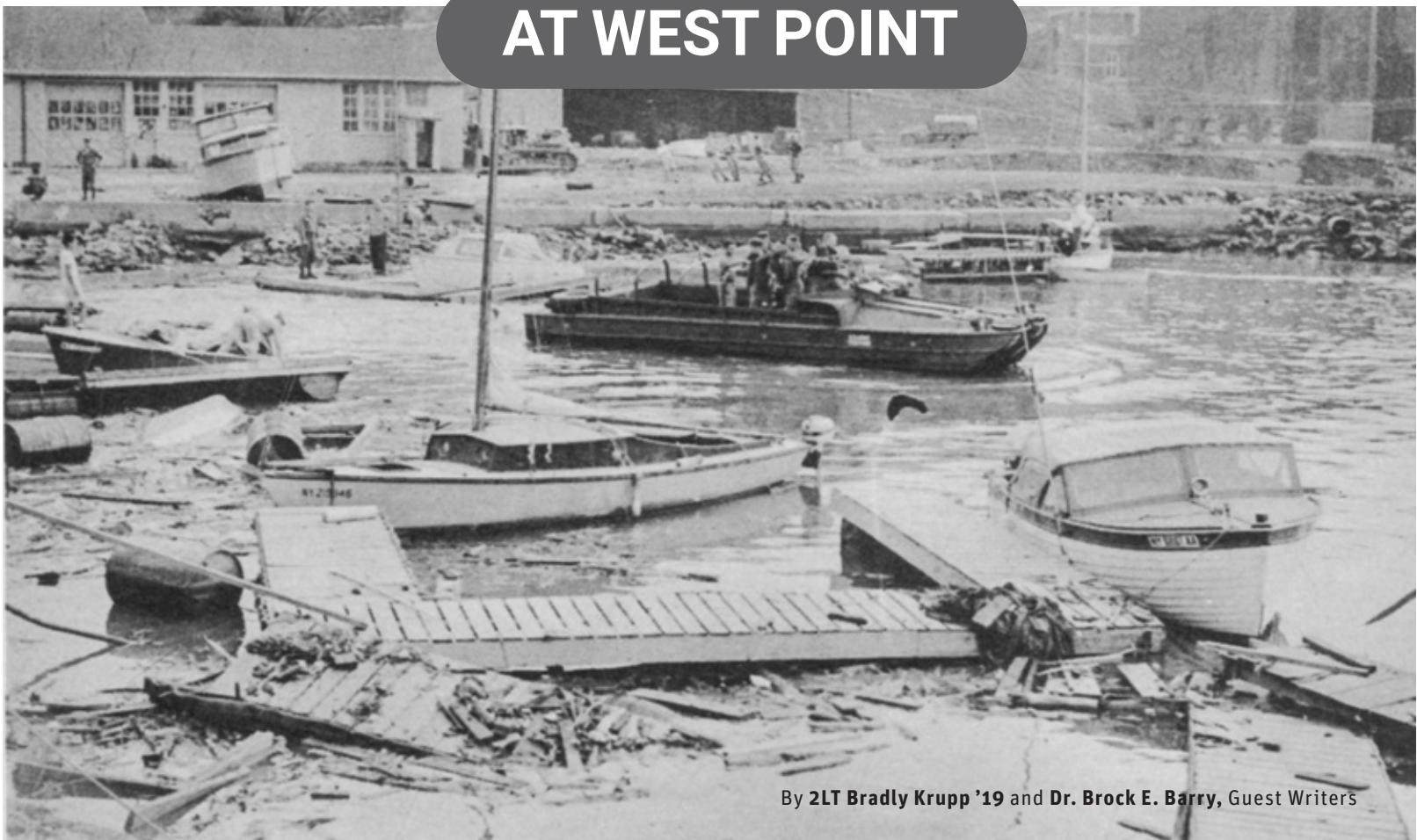
"The Curriculum Committee works with the parties presenting the new major to create the best proposal possible for the General Committee, the next step in the approval process," says Sondheimer. The General Committee consists of 23 voting members—comprised of leaders from all four pillars at the Academy (academic, military, physical, and character)—and they decide whether or not they think the idea for a new major is worth Academy resources. "The General Committee gives the proposal for a new major a tough look," says Sondheimer.

If it passes out of the General Committee, the proposal for a new major goes to the Academic Board, which is overseen by the Superintendent and chaired by the Dean. The Superintendent makes the final decision as to whether approve the major or not, but the Academic Board aids the Superintendent in making this decision. "And it is not a decision taken lightly," says Sondheimer. The Academic Board approaches the matter strategically before it votes, considering (among other things) the number of majors currently at the Academy, alternative options available to cadets, and the signals the Academy is sending through the creation of a new major. In fact, in the last five years, only two new majors have been added to the curriculum, Space Science and Applied Statistics and Data Science, but no proposal has been rejected outright during that time frame either.

Majors are indeed a "major" deal at the Academy. Assessments of existing majors happen every year, during which assessment committees in the Dean's office offer feedback and make recommendations to program directors and department heads on how to improve the majors they offer. The Dean's office also works hard to ensure that cadets approach their obligation to pick a major only after being exposed to a variety of disciplines. "We want them to explore the full breadth of our curriculum before they settle on a major because there could be something that they really hadn't thought about but which might be of interest to them, yet they just haven't been exposed to it before," Sondheimer says. She also says that the Academy encourages cadets to think about choosing a major both for their Army branch and broader service to the nation and society. "All the majors at West Point are designed to provide every cadet with a skill set that is going to help them both immediately and in the long term." ★



AT WEST POINT



By 2LT Bradly Krupp '19 and Dr. Brock E. Barry, Guest Writers

West Point, like many academic institutions, has its fair share of legends. These stories get passed along through generations of cadets and seem to grow with time. One story, rumored to be true, but which has never made it into the “Plebe Knowledge” book, tells of a destructive tsunami that took place along the banks of the Hudson River. A tidal wave at West Point? That’s like telling plebes that intonations to Odin’s name will keep them from marching in a review or that Molly the ghost is haunting Quarters 100, right?

Thus, imagine cadets’ surprise when, during the Civil and Military Engineering Club dinner in April 2018, Brigadier General Gerald Galloway Jr. ’57 (Retired) delivered a presentation and referred to working on a project at West Point in 1961 involving a tsunami! It immediately grabbed the attention of those in attendance. After the dinner presentation, cadets found themselves waiting in line to ask Galloway, former Dean of the USMA Academic Board and a presidential appointee to the Mississippi River Commission, more about this event. Then-Cadet Bradley Krupp ’19 was one of these cadets, and turned his five-minute conversation with Galloway into a successful five-month independent research project.

West Point’s Civil Engineering program, housed within the Department of Civil and Mechanical Engineering (CME), one of eight ABET-accredited engineering programs at the Academy, is ranked as the #2 undergraduate civil engineering program by *U.S. News & World Report*. Cadets in the program take a minimum of two electives from a list of various offerings in the department. One such offering, the *CE489 Independent Study* program, is intended to support cadets who have an interest in conducting research that is not otherwise fulfilled through an existing elective. According to *CE489*’s course description, “The scope of the course is tailored to the needs of the project and desires of the cadet, in consultation with the faculty advisor, [and] the cadet is required to define and analyze the problem, study the fundamentals involved, organize an approach, determine a procedure, perform research and/or achieve a solution, submit a written report, and give a formal briefing.”

An independent study was the ideal solution when Krupp approached Dr. Brock E. Barry, CME Professor, about collaborating on an investigation of the West Point tsunami soon after hearing Galloway speak. They immediately began to scope out a plan of investigation for the 2018 fall semester.

Chasing down hard facts on the West Point tsunami was difficult. Research of this type often results in false starts, inaccurate claims, and dead ends. Adding to the research challenges were conflicting reports; for example, inferred tsunami wave heights varied significantly. Krupp and Barry’s collaborative efforts included conversations with and scouring files held by the West Point Historian, the West Point Archaeologist, various Department of Public Works organizations, members of the West Point community and the Town of Highland Falls Historian. Consultation with the West Point Museum appeared to generate no information until David

Reel, Executive Director, shared a personally owned file of photographs and correspondence related to the event. Some information was also gleaned from interviews with individuals who were children at West Point at the time of the event. Ultimately, the richest information came via contact with an Engineer Emeritus at the U.S. Army Engineer Research and Development Center (ERDC), Dr. Paul Mlakar ’66, who previously held the Class of ’53 Chair in the Department of Civil and Mechanical Engineering. During his time on the faculty, Mlakar was an avid supporter of the independent study program. When he learned about Krupp’s independent study, he offered to check the ERDC archives, where he located Technical Report No. 3-591: “Investigation of Slide and Fill Areas, U.S. Military Academy, West Point, NY,” dated January 1962. This technical report, in concert with information gathered from the previously mentioned sources, resulted in the following details.

West Point’s natural topography may have made it ideal for a revolutionary-era fortress, but its lack of a large, level open space (outside of the Plain) frustrated efforts to construct athletic fields on post. In June 1960, excavation was slated to begin for the construction of a housing area. Site preparation included removal of more than 313,000 cubic yards of soil and rocks. It was



Previous page, top: Damaged railroad tracks along shoreline. **Previous page, bottom:** Damage to North Dock Marina. Note the boat resting on the shore and the hanger in the background. Both photos were taken two hours after the slide occurred. **This page:** A current aerial view of West Point showing the location of the slide.

proposed that the excavated materials could be used to in-fill a relatively shallow section of the Hudson River to create athletic fields. This technique had been used successfully in the past at West Point. In fact, the entire area between the Gillis Field House and the Anderson Rugby Complex was previously swampland infilled to create usable space. Likewise, the River Courts and South Dock area are also re-claimed land. The proposed expansion area for the new fields was located between the North Dock Marina and an active rail line that paralleled the shore.

The project went on for 14 months. By late August 1961, the field construction was nearly complete, and establishing grass for the playing surface was planned for the next few weeks. On August 25, 1961, Mrs. Gene Ostertag was relaxing and reading a book at Trophy Point on a warm, sunny afternoon. As this was the Friday prior to the long Labor Day Holiday weekend, work on the project had stopped early that day. Multiple pieces of

construction equipment were parked on the site, but personnel were long gone.

At approximately 4:45pm, Ostertag decided to take a break from reading. She put down her book and looked up from her vantage point and saw something no one else has ever seen from Trophy Point's "million-dollar view": suddenly, a large portion of the shoreline collapsed beneath the surface of the river. Ostertag was the only eyewitness to the plummeting of approximately 6-and-½ half acres of recently created shoreline, what would later be referred to as the "North Dock Incident." Based on her description, the northern section of the fill began to move first, and subsequently other sections continued to slide with the failure surface progressing westward. The entire slide event mobilized an estimated 1,000,000 cubic yards of material, creating the legendary tsunami of which Galloway spoke.

The wave created by the collapsing area raced across the Hudson River to Constitution Island before rebounding back across to West Point. The wave, with a crest of approximately 8 feet, crashed into the West Point Yacht Club, where it destroyed, released, toppled or damaged nearly every boat in the North Dock Marina. Boats as large as four-and-a-half tons were tossed from the water and carried 100 yards inland. Located just north of the Marina, a former hydroplane hanger was in use as a warehouse to store personal belongings of junior officers who were relocating to West Point. When the wave crashed into the hanger, the receding wave carried the junior officers' furniture, trunks and other belongings into the river. In addition, at least 100 feet of railroad tracks were displaced and destroyed during the slide.

A team of engineers from the United States Army Corps of Engineers (USACE) New York District and the USACE



BG (R) Gerald Galloway Jr. '57



2LT Bradly Krupp '19



Area of slide. North Dock Marina is located in the left side of the image. Former hanger is located in the top, center of the image.

Waterways Experiment Station of Vicksburg, Mississippi was immediately dispatched to the scene. A board of external consultants, including some of the most prominent civil engineers of the time, was also hired to provide insight. A young USACE engineer named Gerald Galloway was also part of the team.

Ultimately, the technical report was not able to identify the mechanism that triggered the failure, so the cause of the slide remains a mystery. Records indicate that the tide was falling at the time of the slide, from a high of 3.7 feet above mean sea level at 11:34am to a low of 0.3 feet above mean sea level at 6:10pm. A cargo ship en route from New York City to Albany, New York passed the site roughly 15 minutes before the slide, but no unusual wake or turbulence was reported. Approximately 45 minutes before the slide, a freight train consisting of 73 cars (including 23 empty cars) traveled past the site. While the freight train represented a dynamic load of more than 4,000 tons at an estimated speed of 30 mph, three freight trains and one express passenger train passed the site twice each day. Thus, no significance is associated with the train that passed the site before the slide. U.S. Weather Bureau records do not indicate any significant rainfall events in the 10 days preceding the slide. The Crown Ridge fault is located beneath the site, but seismographs at Fordham University did not indicate any seismic activity with a sufficient magnitude to cause the slide.

Damages resulting from the slide and tsunami were estimated to be in the vicinity of \$250,000 in 1961 (worth approximately two million in today's dollars). The project was within mere months

of completion at the time of the slide. While the damage to the railroad, the marina, and the warehouse was significant, the situation could have been catastrophic if the athletic fields were complete and full of USMA cadets.

The technical report generated by the team of investigators includes a slope stability analysis, but it never explains how the slide progressed after it started. Krupp was able to use the raw data from the report, along with modern finite element modeling software, to recreate conditions immediately prior to the slide and hypothesized its progression. Results from the computer model showed a pattern of instability, and Krupp's analysis suggests that a series of relatively small slides along the river edge of the fill resulted in an east-to-west progression toward an overall failure of the entire mass.

Careful and thorough investigation of this event made it a successful independent study. By connecting clues, applying previously learned knowledge, and implementing modern tools, Krupp was successful in adding new layers and new life to this nearly lost West Point legend. ★

Bradly Krupp '19 is a second lieutenant in the Corps of Engineers and is currently in his Basic Officer Leadership Course at Fort Leonard Wood, Missouri, but he will move to Washington state to join the Second Infantry Division in February 2020.

Dr. Brock E. Barry, P.E., F.ASCE, is a Professor in the Department of Civil and Mechanical Engineering at the United States Military Academy.

HERFF JONES, LLC

**UNITED STATES MILITARY ACADEMY
BACK-DATED RINGS & JEWELRY**

*If you didn't purchase a Miniature ring
or Class Jewelry for graduation,
or if your class ring has been lost or damaged,
or if you're looking for a special gift . . .*

**HERFF JONES can provide you with a new ring
and class jewelry for the following graduation classes:**

 	CLASS RINGS	1954	1974	1987	1994		CLASS JEWELRY Pendants, Tie Tacs, Ring Base Charms & Cuff Links
	Male Ring, Female Ring, Miniature Ring & Wedding Bands	1957	1978	1990	1998		
		1959	1980	1991	2001		
		1967	1983	1992	2002		
				1993	2008		

We are your Official Supplier!

Contact Robert Vaz
 800-451-3304, ext. 401289
rmvaz@herffjones.com



General Ann Dunwoody Receives 2019 Thayer Award



GEN Ann Dunwoody, the 62nd annual Thayer Award recipient, poses with cadets from the Black and Gold Leadership Forum inside Taylor Hall's Thayer Award Room.



On the day of the Thayer Award ceremony, GEN Dunwoody held Q&A sessions in the Superintendent's Conference Room with cadets from the Black and Gold Leadership Forum, the Margaret Corbin Forum, and a select group of cadets branching logistics.



Left: GEN Ann Dunwoody, the 2019 Thayer Award recipient, troops the line with LTG Darryl Williams '83, 60th Superintendent of West Point. **Top, left:** GEN Dunwoody receives a cadet bust from CDT Daine Van de Wall '20, First Captain, as a token of appreciation from the Corps of Cadets for her address to them in the Mess Hall. **Top, right:** Dunwoody, Williams '83 and LTG(R) Joseph DeFrancisco '65, WPAOG Chairman, at the Thayer Review. **Above, left:** Dunwoody, the first woman in U.S. military history to achieve the rank of four-star general, with her recently unveiled portrait in Taylor Hall's Thayer Award Room. **Above, right:** LTG(R) Joseph DeFrancisco '65 presents the 2019 Thayer Award medallion to GEN Dunwoody.

On October 10, 2019, the West Point Association of Graduates presented the 2019 Thayer Award to General Ann Dunwoody (Retired), the first woman in U.S. military history to achieve the rank of four-star general. Established in 1958, the Thayer Award recognizes a U.S. citizen, other than a West Point graduate, whose outstanding character, accomplishments, and stature in the civilian community draw wholesome comparison to the qualities for which West Point strives, in keeping with its motto: “Duty, Honor, Country.”

Dunwoody served 38 years in the U.S. Army, achieving several notable “firsts”: being the first woman to command a battalion in the 82nd Airborne Division; the first female general officer at Fort Bragg, North Carolina; and the first woman to command the Combined Arms Support Command at Fort Lee, Virginia. She also deployed overseas for Operation Desert Shield/Operation Desert Storm and as commander of Surface Deployment and Distribution Command supported the largest deployment and redeployment of U.S. forces since World War II. In her last assignment, Dunwoody led and ran the Army Materiel Command, where she managed a budget of \$60 billion and a personnel corps comprising 69,000 soldiers and civilians located in all 50 states and more than 140 countries. “General Dunwoody’s leadership, love of country, and untiring efforts to make our nation better and stronger are lessons all Americans can admire,” said Lieutenant General Joseph DeFrancisco '65 (Retired), Chairman of the West Point Association of Graduates, before presenting Dunwoody with the Thayer Award. “I can say without hesitation that General Dunwoody’s name on West Point’s Thayer Award plaque greatly enriches the prestige of our alma mater.” ★

In August 2016, Major General John Baker and Lieutenant Colonel Steven Henderson '94 published an article in *ARMY* magazine titled, "Making the Case for Army Data Scientists."

In the article, Baker and Henderson posit that the Army needs to leverage the exponentially growing amount of data it collects in order to maintain a competitive advantage over this nation's adversaries. Doing this, they write, "will involve educating, equipping and retaining a new breed of expert leaders" in three essential disciplines: domain expertise (operations and intelligence), mathematics, and computer science. "No formal Army personnel system is necessarily producing someone who is steeped in all three components of data science," Baker and Henderson determine. "But we need to move swiftly and boldly to commission Army data scientists to lead this effort."

While Baker and Henderson's argument was finding an audience, West Point's Department of Mathematical Sciences (MATH) was independently laying the groundwork to make the article's recommendation a reality. Statistics had already been part of the MATH curriculum for some time, and about a decade ago, the department launched an Applied Statistics minor. "As our Statistics efforts have grown, and as the need for data scientists and statisticians has grown, within both the Army and society at large, we came to the conclusion that now is the time to establish a new major that focuses on these topics," says Assistant Professor Lieutenant Colonel Nick Clark '02. According to Colonel Krista Watts '96, Director of MATH's Operations Research and

INVESTIGATING AND INTERPRETING DATA: USMA's New Applied Statistics and Data Science Major

By **Keith J. Hamel**, WPAOG staff



As part of their work in Applied Statistics and Data Science in the Math Department, cadets and their mentoring professors, MAJ Bryan Jonas '08 and LTC Nicholas Clark '02, preview a research presentation.

Photo: Ted Spiegel

Statistics Program, Clark was the one that “put the nuts and bolts together” for USMA’s new Applied Statistics and Data Science (ASDS) major, which was approved by the Dean’s Office in December 2018 and first offered to the cadets in the Class of 2022.

The new major starts with statistics—the first of its six “student outcomes” is “Demonstrate competence in computational and statistical thinking”—but it takes a different approach from the deep dives into probability theory typically found in other mathematic statistics programs. “Instead,” says Clark, “we focus more on taking data and learning from it, as opposed to doing the integrals and the calculations in which the pure mathematician would be interested.”

“As our Statistics efforts have grown, and as the need for data scientists and statisticians has grown, within both the Army and society at large, we came to the conclusion that now is the time to establish a new major that focuses on these topics.”

—Assistant Professor LTC Nick Clark ’02

The ASDS major is also unique in its interdisciplinary approach. In addition to the six MATH courses required for the major, cadets must also take elective courses in a variety of accompanying disciplines: Computer Science, Cyber Engineering, Electrical Engineering, Information Technology and Systems Engineering. Not only does this interdisciplinary approach match Baker and Henderson’s concept in their call for “a new breed of expert leaders,” but it is also beneficial given the large amounts of complex data available today (2.5 quintillion bytes generated per day according to one source). The ability to mine this heterogeneous data in order to make predictions and data-influenced decisions is aided by having an interdisciplinary background. And making predictions and data-influenced decisions—or, according to Clark, answering the “so what” question—is the ultimate goal of data analysis. “From day one, we instruct cadets on the need to convey to an audience what the significance of their analytic model is,” says Clark. Thus, while no additional humanities courses beyond the core are required for the major, the ASDS is interdisciplinary in learning communication skills via math as well. “If you can’t communicate your results to a client, a commander, or a colleague, you might as well have not done the analysis at all,” says Clark.

ASDS majors get practice performing data analysis on real Army issues. One current cadet is working on body composition study for the Army, researching the correlation between differences in soldiers’ body measurements and the likelihood of suffering a catastrophic injury in Basic Training (one that would require separation from the Army). Another one of ASDS’s current senior capstone projects is feature extraction, which it is performing in conjunction with the



CDT Dorothy Dennis ’20 is completing a senior thesis for the Mathematics Department that will statistically explore the topic “Cancer Toxicity as it relates to Mortality.” Much of her research is being done through the Memorial Sloan Kettering Cancer Center. Colonels Krista Watts ’96 and Grover (Jake) LaPorte ’93, both Academy Professors in Mathematics, support her efforts. Dennis’ project would be pursued next year through the newly created Applied Statistics and Data Science major.

STUDENT OUTCOMES OF THE APPLIED STATISTICS AND DATA SCIENCE MAJOR

1. Demonstrate competence in computational and statistical thinking



2. Demonstrate competence in mathematical foundations

3. Apply statistical model building and assessment techniques



4. Employ algorithmic problem-solving skills

5. Prepare and manage data through the entire problem-solving process



6. Transfer knowledge

Army's Special Operations Command. "Since we stood up the major, we have talked to Army Futures Command and the Special Operations Command, both of which have said they want to partner with MATH and do some research projects," says Clark. In this project, ASDS majors are working to develop a classification system so that a computer can analyze a satellite photo and identify its subject (is that a target or not?). "The computer is just looking at the photo as ones and zeros," says Clark. "It's a giant matrix, that turns into a vector, that turns into a classification problem that applied statisticians love to work on." In the classroom, ASDS majors study the algorithms needed to allow a computer to perform the above work. They also learn the math supporting these algorithms and how to program and implement new algorithms on a computer. Designing and constructing new processes for data modeling and programing (or coding) is what raises MATH's ASDS major above common data analysis. "Applying statistical modeling and data science skills to unique problems is a thread that runs through the entire ASDS curriculum," says Clark. "The projects that faculty and cadets within the major are working on have relevancy to the Army today."

MATH's ASDS program is also relevant to the Army because of a "train-the-trainer" model it is using to certify West Point junior faculty members as data scientists. On study days, faculty members from various academic departments, again showing ASDS's interdisciplinary nature, gather for a series of classes focused on data science. With guidance from Clark, two junior MATH faculty members, both Class of 2008 graduates, lead lessons on applied statistics and data science, showing how the

field has evolved from the time when the other faculty attended graduate school to the state-of-the-art computing methods used today. "They know the research, they read the articles, they determine what other faculty members need to know to stay current," says Clark. "They are also teaching them coding skills, teaching them how to do distributive computing, and teaching them how to operationalize the latest and greatest data science techniques so that they can stay on top of such a rapidly changing field." Those who complete the course receive an additional skill identifier related to Functional Area 49 (Operations Research/Systems Analysis). "It's really a two-for-one benefit," says Clark: "MATH gets a bench of faculty members who can teach ASDS classes and advise cadets one-on-one with their research projects, and the Army gets trained data scientists who can analyze data and make data-informed decisions down range."

Right now, the Army is using data analytics to gain an advantage in everything from recruiting warriors for the force to viewing the modern battlefield. But, according to the defense industry publication *Defensetech*, the entire U.S. military is having trouble finding people to mine all the data it collects in all these areas. "There is a giant sucking sound for people with an ASDS skill set," says Clark. "If we do this right, three years from now we will have graduates who will be force multipliers when they are commissioned, doing things that the typical second lieutenant can't do, and we will be sending our rotating faculty back to the Army as certified data scientists, and both groups will have senior leaders jumping at the chance to tap their skills." ★

Applied Statistics and Data Science Major Course Outline

FOURTH CLASS		THIRD CLASS		SECOND CLASS		FIRST CLASS	
1st Term	2nd Term	1st Term	2nd Term	1st Term	2nd Term	2nd Term	2nd Term
MA103 Math Modeling/Intro to Calc	MA104 Calculus I	MA205 Calculus II	MA206 Prob/Stats	MA376 Applied Statistics	MA476 Mathematical Statistics	ASDS Elective	MA490 Integrative Experience
CH101 Chem	PH205 Physics	Science Depth	EV203 Phys Geog	CY300 Programming Fundamental	CY350 Network Engineering & Management	CY450 Cyber Security Engineering	ASDS Capstone 1
PL100 Psych	IT105 Info Tech I	MA371 Linear Algebra	PY201 Philosophy	CY355 Cyber Foundations-Computing	SE370 Computer Aided SE	MX400 Officership	LW403 Law
HI105 History	H1108 History	SS201 Econ	SS202 Pol Sci	HI302 Mil Art	PL300 Leadership	SS307 Intl Rel	ASDS Elective
EN101 English Comp	EN102 Literature	LXXXX For Lang	LXXXX For Lang	MA486 Mathematical Computation	MA 477 Theory & Application of Data Science	CS393 Database Systems	MA 478 Generalized Linear Models

Core Program–STEM
STEM Depth
Science Depth

Major Required Courses
New Courses
Complementary Support Courses

Core Program–Humanities
Engineering Sequence

SACC Service Academy Career Conference



Planning a career transition? Start here.

- The only military career fair exclusively for Federal Service Academy Graduates.
- Meet one-on-one with corporate recruiters looking for the unique skills and experience of Academy graduates.
- Get peer advice on managing the challenges of career transitions.
- Learn how to get your foot in the door for your desired civilian career.
- Explore graduate school options.



Jacksonville, FL Mar 26-27, 2020
Washington, DC Jun 11-12, 2020
San Diego, CA Aug 20-21, 2020
Dallas, TX Oct 29-30, 2020

To register for any SACC as an attendee or exhibitor, go to **sacc-jobfair.com**.



WPAOG Career Services
WPAOGcareers.org | 845.446.1618
Email: careers@wpaog.org

WPAOG Career Services can help!
 If you would like more information about WPAOG Career Services visit **wpaogcareers.org**



Army Residence
Community

WELCOME TO THE ARC.

RETIREMENT LIVING FOR ALL BRANCHES OF THE ARMED FORCES.

Whatever your branch of service, if you are a retired officer, the Army Residence Community welcomes you to the freedom and excitement of life in one of America's most unique and military-friendly cities. Here is a total retirement community that surrounds you with patriots like yourself and – if assisted living, memory care, or long-term care is ever needed – with caregivers who understand and honor what you've given your country.

While the ARC independent living community is designed specifically for retired officers and spouses, the ARC Health Care Center welcomes all veterans through private pay for assisted living/memory care/long-term care.

So call **800-890-2305** or go to **armyresidence.com** for more information.

Army Residence Community | 7400 Crestway | San Antonio, Texas 78239

Great residences | Great food | Great neighbors | Great activities | Great community





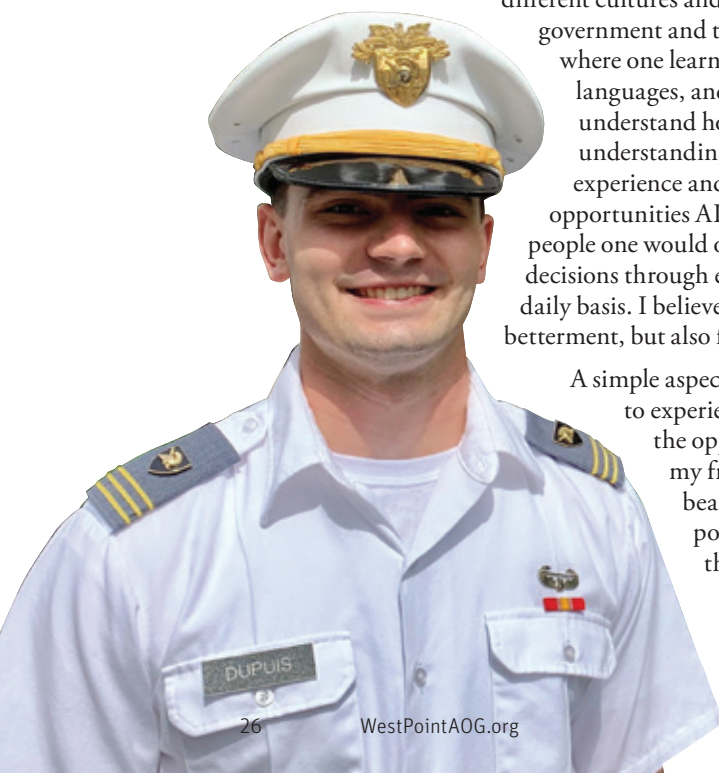
Cadets Need to Go on at Least One AIAD

By CDT Kevin J. Dupuis '20, Guest Writer

The United States Military Academy at West Point offers a myriad of summer training opportunities, from the required details that include Camp Buckner and Cadet Leader Development Training to Military Individual Advanced Developments (MIADs) such as Air Assault and Airborne School. But one of the best kept secrets is the Academy's Academic Individual Advanced Development (AIAD) programs, which offer untold opportunities for cadets to leave their current world view behind and experience different cultures and lifestyles on international trips. While most AIADs take the form of internships in government and the private sector, I believe the best experiences lie in the opportunities to go abroad, where one learns not only about academic topics of interest, but also learns about different cultures, languages, and ways of life. AIADs allow cadets to broaden their view of the world and better understand how they fit into their future role as officers in the United States Army, through understanding that the beauty of growth and success in life is not the end state, but rather the experience and the adventure one took to get there. A reverence for such a concept comes from the opportunities AIADs offer: understanding different cultures through their cuisine, getting to know people one would otherwise not have met, and creating lifelong memories that will guide individuals' decisions through everyday life. AIADs have shaped my cadet experience and the way I view my life on a daily basis. I believe every cadet should take advantage of international AIADs not only for their own betterment, but also for the benefit of their future soldiers.

A simple aspect of culture that unites and helps identify a people is their cuisine. AIADs allow cadets to experience different cultures through their tastebuds in a more relaxed setting. Everyone has the opportunity to take risks by ordering the more controversial dishes offered. In Estonia, my friends and I had the privilege and courage to try an assortment of dishes ranging from bear dumplings to medieval style bean bags. Access to such an experience would not be possible without the opportunity to participate in an AIAD. Cadets must refrain from their natural inclinations to dine at the international branches of the more well-known

Top: Cyber AIAD—Estonia: Before the NATO Cooperative Cyber Defence Centre of Excellence's (CCDCOE) International Conference on Cyber Conflict (CyCon) kicked off in Tallinn, Estonia, West Point cadets enjoyed an opportunity to learn about Estonian culture through museums, people, food, and more.
Left: CDT Kevin J. Dupuis '20.



American chains such as the local McDonald's or Burger King. Instead, genuine foreign cuisine is found down the cobblestone roads and alleys in city centers. On these avenues resides a country's true cuisine inside quaint mom-and-pop establishments that only serve traditional dishes, a culture's culinary identifier. Should our American palates prefer one dish over the other is of no import, but the experience of trying another culture's premier dishes allows for the development of one's cultural competency. Whether sweet or bitter, mild or spicy, a culture's cuisine serves as a microscope into its people. Meals are not just nutritionally based, they also reveal customary norms and practices that offer additional insight into the culture in which one is dining.

In the United States, a night eating out at a restaurant that takes more than an hour may be viewed as a meal with bad service. In Poland and Estonia, we learned first hand that any meal under two hours is seen as extraordinary. Meals are time allotted for social development and interaction. If we sat down to eat any later than 7pm we knew that the meal, and the collective company of our group members, would be the entertainment for the night. It is an interesting dynamic. One's instincts frustrate the mind as time goes on at the table, but I found that the meal in its entirety led to more relaxation and genuine interest in the conversation at hand, since there was no reason to rush as the service was tailored around a concept similar to "island time." Such a concept showed a second advantage to participating on such trips: the people.

The longevity of every meal showed me that Europeans focus not on time, but on with whom time is spent. At each meal, new stories, tales of everyone's daily adventures, and group chemistry spilled over the table along with the crumbs and remains of our

main courses. Here, I realized the impact a conversation's environment has on a group whose members spread across the classes of the Corps as well as those of the officer ranks. From guidance for cadet life and professional career advice, to life experiences that can shape one's view of their own journey, this type of discussion does not come out every day at the Academy, nor does such an audience assemble. International trip AIADs bring together a wide variety of cadets, ranging from the rising Third Class to Firsties who have freshly taken ahold of the Corps. In addition, the officers who coordinate and supervise such trips include captains recently selected for promotion and newly minted second lieutenants who can offer a wider view on subject matter and even the progression of cadet life. These trips bring together groups of individuals who otherwise would not have met each other, including those from different walks of life and even some who once lived just down the street from each other. Following my third year, I took my first international AIAD trip and my roommate was a Firstie who lived not 10 minutes away from me back home. It took both of our appointments to USMA and a dual-department AIAD to bring us together, when the likelihood of a coincidental run-in at the local Whataburger was more likely to introduce us. He's guided me through rough times not only at the Academy but in my personal life as well. He showed me the importance of trusting your instincts, believing in yourself, and most importantly, never taking yourself too seriously. He emphasized that the academic nature of these AIADs serves us not only in the classroom but in life experience: the best kept secret in the academic department.

AIADs present cadets the opportunity to experience events that they will remember for a lifetime. In my AIAD travels, I have felt the crash of the waves in the Sea of Galilee, walked through the



Cyber AIAD—Marshall Center: During their cyber-focused AIAD, West Point Cadets and U.S. Naval Academy midshipmen hear from NATO partners and allies and experts, both military and civilian, to better understand cyber law and effects of sanctions at the Marshall Center in Germany.

aura of death in Auschwitz-Birkenau, and basked in the beauty of the city of Jerusalem. I visited places and did things I would otherwise not have been able to do if not for the opportunities offered by USMA's AIAD efforts. These are memories and experiences I will hold with me for a lifetime. These experiences have molded my outlook on leading others, struggle, and the concept of life. The opportunities that AIADs offer are incomparable to that of any other trip or training. AIADs, through the authorization and abilities of USMA, grant cadets access to material unavailable to the general populace. They provide beneficial insight for cadets into the worlds of culture, history, and intelligence, shaping more informed and competent leaders. These leaders are able to react to the challenges before them with an advanced decision-making process refined by the experiences bestowed upon them in USMA's AIADs.

Life is rewarding in the end state, but as cliché as the saying goes, the journey, the adventure, is more rewarding. Looking at my cadet career, I am not proud of where I stand in my class. I am not proud of the things I have done. I am only proud of the experiences that have led to where I stand today. Times of trial and catastrophe are corrected through hard work and the exercise of moral character, and, when you need it most, just the right amount of luck. That is the process that fills the hearts of not only cadets, but people. Such a process only brings people fulfillment when the end state is achieved, and then the glory in the end only comes from the magnitude of pain, effort, and the tears endured throughout the experience, the adventure. AIADs

bring forth such a process, valued on the plane ride home, on the walk off the jetway into JFK, and down the steps of the bus after it arrives at Daly Field. Such a feeling ought to be endowed to every cadet to create a reverence for not only the end of a detail, but the experience, the adventure that life guarantees. AIADs allow cadets to experience adventure through foreign languages, science, literature, and all fields of academia, including the most important topic--life. All cadets ought to seize the opportunities AIADs offer not only for the betterment of their academic careers, but for the betterment of their lives. ★

CDT Kevin Dupuis '20 participated in a cyber-focused AIAD in summer 2019. Hosted by the Army Cyber Institute and the Law Department, the cyber AIAD provided cadets with an opportunity to learn about the cyber domain and the importance of strengthening ties with NATO allies and partners to enhance cybersecurity. Cadets attended cyber conferences in Estonia, Poland, and Germany and also worked side-by-side with Naval Academy midshipmen to learn about cyber issues. In each location, cadets took advantage of the unique cultural opportunities to explore and learn.

Academic Individual Advanced Development (AIAD) Programs are a Margin of Excellence program. Such opportunities make a West Point education like no other, and they are made possible through gifts to WPAOG from graduates, parents, corporations, foundations, and other friends of West Point.



Focusing on the theme of Silent Battle, the International Conference on Cyber Conflict, CyCon in Tallinn, Estonia, 2019 explored how different disciplines approach the concept of cyber battlefield. CDT Kevin Dupuis, Class of 2020, asks a keynote speaker a question during CyCon.



Best of The Line '69

So Freedom Will Reign



The Class of 1969 proudly salutes our 1,025 Affiliates in the Class of 2019

We warmly welcome you to the Long Gray Line and extend best wishes as you embark upon your years of service to the Nation.



Consistency - noun

Conformity in the application of something, typically that which is necessary for the sake of logic, accuracy, or fairness:

Synonyms: steadiness, reliability

Antonym: Fickleness (found often in weather and financial markets)



We're hiring a few Associates to take part in our growth.

If you have a passion for commercial real estate, and investor relations, please visit our website and contact us.

www.BattleMonument.com
Photo Credit Gregory D. Gadson

DISCLAIMER: This private organization is a non-federal entity and not an official activity of the United States Military Academy. It is not endorsed, recommended, or favored by the United States government. The views and opinions expressed by this organization do not necessarily state or reflect those of the United States Military Academy, Department of the Army, or Department of Defense.



2019 NININGER AWARD



Captain Lindsay Gordon Heisler '12

On October 24, 2019, the West Point Association of Graduates presented the 14th annual Alexander R. Nininger Award for Valor at Arms to Captain Lindsay Gordon Heisler '12.

In December 2015, Heisler was serving as a co-pilot/gunner of an AH-64 Apache helicopter while deployed with the 1-101st Aviation Regiment ("Task Force Shadow") to Bagram, Afghanistan in support of Operation Freedom's Sentinel when she engaged enemy forces during the extraction of a Ranger unit. Despite taking indirect fire from all directions, Heisler and her pilot positioned their Apache directly between U.S. troops and enemy forces as the extraction got underway, and she continually fired rounds from the chopper's 30mm chain gun to draw fire away from the Rangers and to suppress the enemy.

As she explained to the Corps of Cadets gathered in the mess hall for the Nininger Award dinner, being part of a team/teamwork and the preparation for pressure situations, two lessons that figured prominently in her West Point experience, are the elements that

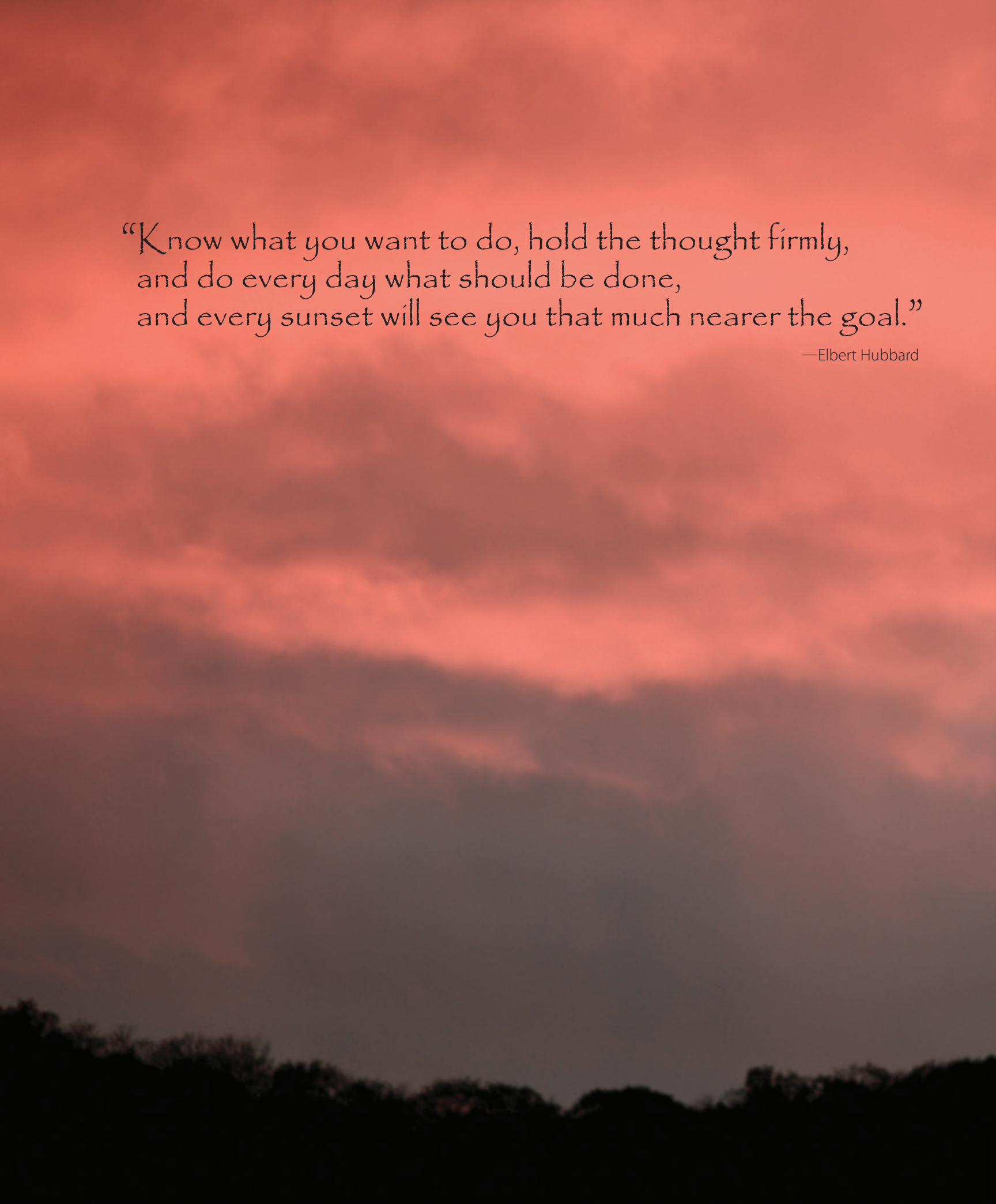
"brought every American home that night." Regarding the importance of teamwork, Heisler said, "Understand that when you become platoon leaders it is not about you: it's about making every soldier in your platoon successful and enabling them as a team to accomplish their mission." And regarding preparation, Heisler told the cadets, "You need to prepare every day to ensure that you are ready for when you are called upon to do your job at a moment's notice."

The Nininger Award is endowed by E. Douglas Kenna '45 and his wife, Jean, and is named for Second Lieutenant Alexander R. Nininger '41, who fought the enemy to his death during the Battle of Bataan in January 1942 and posthumously received World War II's first Medal of Honor. In addition to recognizing the Nininger recipient for his or her bravery as an individual, WPAOG regards the recipient as a given year's representative for all West Point-commissioned officers who have heroically led soldiers in combat. ★

Above: 2019 Nininger Award recipient CPT Lindsay Gordon Heisler '12 with Todd Browne '85, President & CEO of the West Point Association of Graduates and LTG Darryl A. Williams '83, 60th Superintendent of West Point.



Clockwise from top left: First Captain CDT Daine Van de Wall '20 presents Nininger Award recipient CPT Lindsay Gordon Heisler '12 with a Cadet Saber. CPT Heisler addresses the Corps of Cadets at West Point. CPT Heisler with members of the brigade staff. CPT Heisler, who played soccer as a cadet, with Head Women's Soccer Coach Adrian Blewitt and the Army West Point women's soccer team. CPT Heisler plays soccer with the Army West Point women's soccer team.



“Know what you want to do, hold the thought firmly,
and do every day what should be done,
and every sunset will see you that much nearer the goal.”

—Elbert Hubbard





“Leading a Felt Life”

General Martin Dempsey '74 Delivers 2019 Zengerle Lecture

By MAJ Nathan Pfaff, Guest Writer

On September 20, 2019, West Point welcomed General Martin Dempsey '74 (Retired) for the fourth annual Zengerle Family Lecture in the Arts and Humanities. More than 1,200 cadets, faculty, staff, and guests gathered in Robinson Auditorium to hear the former Department of English Instructor and former Chairman of the Joint Chiefs of Staff deliver his lecture titled “Leading a Felt Life.” Dempsey joined a distinguished line of Zengerle lecturers that includes U.S. Supreme Court Justice Ruth Bader Ginsburg, author Ta-Nehisi Coates, and former President of Harvard University Drew Gilpin Faust, Ph.D. Hosted by the West Point Humanities Center, the Zengerle Family Lecture in the Arts and Humanities is graciously supported by Joseph Zengerle '64 and his wife Lynda. The lecture aims to enhance cadet development by bringing a leading figure in the humanities to West Point each year. This year General Dempsey brought a distinctly military perspective on the value of the humanities to leadership, character development, and life.

Introduced by Colonel David Harper, Head of the Department of English and Philosophy, Dempsey called on his experience as a West Point English instructor and began with a grammar lesson. He paired the Samuel Becket quotation “I can’t go on; I’ll go on” with a

photo of Marine private racing across “The Valley of Death” on Okinawa during World War II. For Dempsey, the photo exemplified “the unimaginable combination of courage and fear which is service in combat.” The grammar lesson came when he turned to the Beckett quote and explained how “a complete sentence or a complete thought has to follow a semi-colon, but it is very much related to the first [thought].” He went on to discuss the two thoughts in the Beckett quote and explain how Private Eisen’s combination of “courage and fear” in the photo showed how closely the two thoughts are related. He then connected this to the cadets in the audience by saying that the soldiers they will lead will face situations in life, training, or combat that will make them think, “I can’t go on.” In these moments, cadets “have to be the leader who helps get them to the other side of that semi-colon. And there are going to be times when [soldiers] don’t want to do it, when they don’t think they can do it, and only good leadership gets [them] there. Only good leadership gets them to say to themselves ‘I’ll go on.’”

Dempsey finished his discussion of the Beckett quotation by saying, “If there were a subtitle for this...it would be trust.” He exhorted cadets to earn the trust of their subordinates every day through their actions, and to “demand trust of those who follow you. But

you have to go first.” Trust as a foundational element of leadership became a focal point for his lecture. Through anecdotes about his work with the USA Women’s Basketball Team and his time as a division commander in Iraq, Dempsey connected the concept of trust to being fully present in the moment. According to him: “If you’re not here, not only are you doing yourself a disservice, you’re doing the men and women to your right or left a disservice...you’ve got to be [here] in a way that’s focused.”

He further illuminated trust’s significance by emphasizing military leaders’ ability to impact their subordinates positively and negatively. To do this, he quoted W.B. Yeats, who said to the woman he loved: “Tread softly because you tread on my dreams.” Using this quotation, he explained to cadets how they will have a unique responsibility for, and influence over, their subordinates’ dreams. Their future soldiers—and those soldiers’ parents, spouses, and children—will entrust the cadets with those dreams, and they will have a responsibility not to “tread” on them unnecessarily.

Dempsey’s advice to cadets was not, however, exclusively military, but trust remained a key element. Here General Dempsey quoted Anton Myrer’s character Sam Damon in *Once an Eagle* who said: “If it comes to a choice between being a good soldier and a good human being—try to be a good human being.” He encouraged cadets to trust themselves and to construct their own moral compass composed of those values most important to them. Sam Damon’s lines expand the scope of this compass well beyond their military experience and illustrate the importance of trust to both the profession of arms and to living an honorable life beyond it.

To conclude his lecture, Dempsey turned to a phrase of his own. He described to cadets how difficult he had found it to face the squad and platoon mates of soldiers who died under his command. Dempsey said at the beginning he struggled to find meaningful words to say to them, but that the morning before a memorial service the words came to him. He then recalled the specifics of that memorial service: “When it was my time to look these young men and women in the eye and see that combination of fear and guilt and courage, when it was my time to talk to them I said ‘Make It Matter.’” Here General Dempsey became noticeably emotional, paused to take a sip of water, and regained his composure: “Because

you can’t bring them back. I’m going to send you back out, but you can ‘Make it matter.’” Shifting from recalling the memorial to directly addressing the cadets, General Dempsey continued, “And I didn’t just mean making it matter in combat...be there for someone, help someone. That’s making it matter too—if you can go through life and make something matter for someone other than yourself every day. Then in the aggregate of your life, you’re going to make a big difference. And if you can do that, you’ll be the leader we need you to be.”

Following this powerful end to his lecture, Dempsey opened the floor to questions from the cadets, and one of his answers revealed a significant alignment between Dempsey’s values and the work being done at West Point. He was asked, “What is the most important thing you ever did?” Dempsey’s first answer was simple: “Marrying my wife.” But he then turned to what he thought the cadet really wanted to know: What was his greatest professional accomplishment? Here Dempsey turned to his time as the TRADOC commander beginning in 2008. He described a trend from 2003 to 2007 where the Army did not emphasize continuing education for its officers or NCOs and even “devalued education.” This, he said, was a “mistake.” “A profession has to continually educate itself,” and he took the most professional pride in his efforts to ensure that the education that begins at West Point continues throughout an officer’s career. ★

Major Nathan Pfaff is an instructor in the West Point Department of English and Philosophy, where he teaches core courses in composition and literature. He is an Armor officer from San Antonio, Texas and holds a Master of Arts in English Literature from the University of Texas at Austin.

The Zengerle Family Lecture Series in the Arts and Humanities is an annual lecture series endowed through WPAOG by Mr. Joseph Zengerle '64 in honor of his wife, Lynda, and their two sons, Tucker and Jason. The lecture brings a leading figure in the arts and humanities to West Point each year to enhance faculty and cadet intellectual development, facilitate interdisciplinary scholarship, and bridge the civil-military divide by inviting important and diverse voices in the arts and humanities to address a military audience.



Left: GEN(R) Martin Dempsey '74 with Joe Zengerle '64 and his wife, Lynda. **Right:** CDT Antonella Blanco '21 and CDT Taylor Stringer '21 present Dempsey with a copy of Ulysses S. Grant's (1843) letter to the widow of his fellow Union General Charles Ferguson Smith informing her of her husband's death. The letter's compassionate frankness embodies the principles with which Dempsey himself led.

The World as



CDT Sarah Martin '21, Environmental Engineering, leads a discussion before a field mapping exercise at Garden of the Gods.

Classroom:

G&EnE Revives the Geology Field Course

Geologists usually think in terms of millions of years, but 2019 marked a special milestone for the U.S. Military Academy: *EV388A: Physical Geology* reached 50 years of instruction. The inaugural Physical Geology course was taught by Lieutenant Philip S. Justus in the Department of Earth, Space, and Graphic Sciences (now known as the Department of Geography and Environmental Engineering or G&EnE). When established in 1969, this course included numerous field learning exercises and provided cadets an opportunity to learn about the world around them and how it was formed. Its lessons primarily emphasized learning to identify minerals and rocks and then applying this knowledge to analyze the significant geological processes that act on and within the Earth. Today, cadets learn plate tectonics, rock mechanics, structural geology, geologic mapping, ground and surface water analysis, geologic time, and elements of mining and petroleum engineering. In addition, field learning exercises illustrate how local geology influenced development and construction in the Hudson Valley, particularly around West Point.

As demand for *EV388A* grew, the Environmental Program faculty searched for innovative ways to address the increased enrollment as well as to enhance cadet learning. This ultimately led to the creation of *EV399A*, the Geology Field Course, in 1990. *EV399A* also fulfills the Academic Individual Advanced Development (AIAD) graduation requirement. The three-week



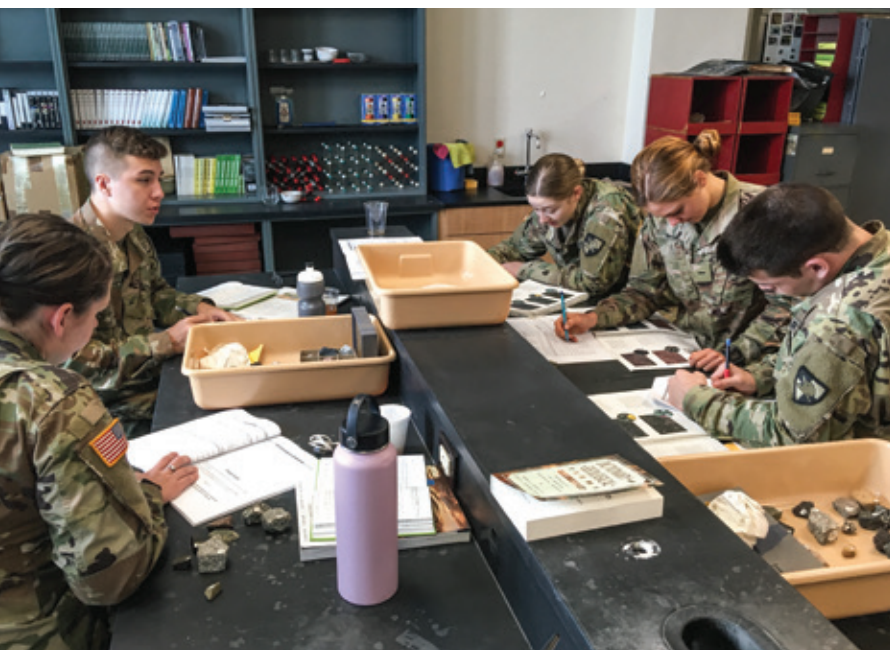
CDT Matthew Marino '21, an Environmental Engineering major, leads a discussion at the Florissant Fossil Beds National Monument.

By COL Mindy Kimball '96 and LTC Ben Wallen '96,
Guest Writers

course was originally designed so that the first week was spent at West Point and the remaining two weeks at the United States Air Force Academy (USAFA). The week at West Point focused on establishing the geologist's toolkit for experiential learning. The two weeks in Colorado enabled a wide variety of hands-on geology experiences, which are difficult to replicate in the Northeast. Additionally, the course provided a platform for a joint learning environment, with USAFA and USMA instructors teaching the course to cadets from both academies. *EV399A* ran continuously from 1990 until 2006, when the course was placed on hold due to curriculum changes at USAFA and increasingly prohibitive travel costs.

Over the years, many of G&EnE's returning faculty had participated in *EV399A* as cadets, including the current Environmental Science Curriculum Coordinator, Colonel Mindy Kimball '96, and the Environmental Engineering Curriculum Coordinator, Lieutenant Colonel Ben Wallen '96, who coincidentally participated in the same field course experience in 1994. The camaraderie and encouragement of lifelong learning were big factors in their desire to return to West Point as faculty. In 2019, Kimball and Wallen revived the course through innovative use of department funds, gift-funding from the Dean's Office, and the Richard and Deborah Adams Academy Scholar Endowment. Twenty years earlier, Richard Adams '67 and his wife, Deborah, endowed this fund to support the field geology experience for future cadets. Their endowment is dedicated to experiential learning opportunities that enhance cadet education and leadership development. Partnership with USAFA provided cross-academy faculty integration and logistics support. Further resource support was provided by Fort Carson, Colorado. These relationships enabled G&EnE to reboot the course for a limited number of cadets (the capacity for the course is a total of 20 cadets from both USMA and USAFA). Based upon available funds for summer 2019, eight USMA cadets (out of 27 applicants), two USMA faculty members, and one USAFA instructor participated in *EV399A*. Although no USAFA cadets

Cadets worked long days at West Point learning rock and mineral identification before heading to Colorado. Here they are completing the igneous rocks laboratory exercise.



participated in the course this past summer, cadets interacted with their USAFA counterparts while staying in that academy's dorms. They also got to stay at a field site used by USAFA Civil Engineering cadets and saw their technical lab facilities. The interactions with USAFA and the support shown by its faculty and staff enabled a successful *EV399A* rebirth, which demonstrated to the cadets the synergy that occurs across the joint community.

While participating in the Geology Field Course, cadets investigated the geological processes that shaped numerous western landscapes: Garden of the Gods, Cave of the Winds, Seven Falls, Dinosaur Ridge, Browns Canyon, Florissant Fossil Beds, and the Rocky Mountains. "A textbook can't do this," said Environmental Engineering major Cadet Matthew Marino '21. "We are applying what we learned out here and it's pretty incredible." Cadets met veterans from the Army and the Marine Corps who now work in mining and petroleum engineering at the Cripple Creek and Victor Gold Mine, as well as at the Mollie Kathleen Gold Mine. At each site throughout the AIAD, cadets facilitated peer discussions about geology and its billions-of-years-long processes. Cadet Spencer Myers '21 appreciated these "unique opportunities to go and see real world examples of many processes that shaped the Earth." Cadet Joseph Chellis '22 took a few moments of solitude at Rocky Mountain National Park to sketch the many mountain peaks in his field notebook. He believes that "the skills of making observations in the natural world and reasoning through them are useful ones for an Army officer."

EV399A also provided leadership growth and development for cadets outside the traditional classroom. Cadets assumed leadership roles ranging from Cadet in Charge (CIC) to supply officer, medic, and historian. The small group environment enabled cadets to practice leading their peers, with Marino, the CIC, doing a superb job of setting the example coordinating responsibilities and schedules throughout the AIAD. Cadet Alley Rose '21 said she appreciated interacting with other cadets, airmen, and even naval and ROTC cadets. "Being able to build diverse relationships will help me in my personal development for years after the Academy," Rose said. While in Colorado, the USMA cadets also grew from interactions with students from Eastern Michigan University (EMU), the University of Wyoming, Colorado School of Mines, and USAFA. For example, following the peer discussion from Cadet Sarah Martin '21 at Garden of the Gods, the cadets met with 10 students from EMU to conduct a joint geological mapping exercise. The students were led by Dr. Chris Gellasch, a former USMA faculty member who taught *EV388A* and *EV399A* from 2001 to 2004. The EMU students excelled at identifying specific rock layers in the stratigraphic column, and the cadets excelled at using the geologic compass to map the contacts. Together, their experience was strengthened through collaboration and sharing. The cadets realized the benefits they gained from WPAOG funding when they learned that the EMU students paid between \$3,500 to \$5,000 out of pocket to go on their field courses.

The *EV399A* field experience had an immediate impact on cadets, allowing them to take advantage of several opportunities during the academic year, such as adding an academic minor, taking on greater leadership roles in the Corps of Cadets, or facilitating a semester abroad while being a STEM major. Cadet Jerry Cable '22, one of the non-Environmental Engineering



Dr. Melissa Beauregard from USAFA's Civil Engineering Department joined cadets for a day of learning fluvial processes and the geologic history of the Colorado Springs area. Here the group hiked to the top of Seven Falls.

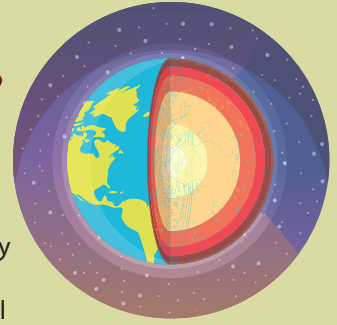
majors who completed the AIAD (Operations Research), credits this experience as “an amazingly enriching event, both academically and personally” and plans to use it as the groundwork to be competitive for graduate-level scholarships. Cadet Maddie Allen '22 did not allow the element of grandeur to be forgotten when she remarked, “Honestly, learning about things in class and then going out and being able to see them, touch them, and experience them, this opens up a whole new way to learn about things and to understand Colorado’s beauty, and then that leads to how beautiful this Earth is.” ★

COL Mindy Kimball '96 is an Academy Professor in the Department of Geography & Environmental Engineering, where she teaches courses in Environmental Science and Geology. She holds a Master of Science in Geology from California State University East Bay and a Doctorate of Philosophy in Sustainability from Arizona State University. She currently serves as the Curriculum Coordinator for the Environmental Science major.

LTC Ben Wallen '96 is an Assistant Professor in the Department of Geography & Environmental Engineering, where he teaches courses in Environmental Engineering. He holds a Master of Science in Geological Engineering from University of Missouri-Rolla, a Master of Science in Environmental Engineering from University of Texas at Austin, and a Doctorate of Philosophy in Civil and Environmental Engineering from Colorado School of Mines. He currently serves as the Curriculum Coordinator for the Environmental Engineering major.

Do You have a USMA Physical Geology Story?

Geologists, akin to historians of the Earth, use their knowledge of natural processes to interpret the stories rocks have to tell. In recent years, G&EnE faculty have unearthed several “gems” in the more than five-decade legacy of Physical Geology at West Point. They have plans to gather these stories into a future oral history project, but here are a few key layers of this geologic history.



While attending an educator’s workshop for field geology, G&EnE faculty members met Janet Crampton, who had a touching connection to the geology course. Janet lived at West Point in the late 1960s while her husband taught math, and she helped West Point professors develop the field trips that would become key components of the new Physical Geology course, started in 1969. Crampton had to be escorted into the cadet area to gain access to the geology books and eventually made her presence known as a geologist. She worked with Kemble Widmer, the New Jersey State Geologist and a Reserve Officer, to develop field trips studying Hudson Valley geology, but she was not permitted to go on the actual trips because they were only for men, but less than a decade later women were on those trips.

During the 2019 Geology Field Course, faculty alumnus Lieutenant Colonel Chris Gellasch (Retired) reached out to coordinate a collaboration between his Eastern Michigan field geology course and the West Point course. The collaboration served as a testimony to the reaches of West Point curriculum beyond the Academy grounds. Chris taught the Geology Field Course while at West Point in the early 2000s.

Last year, faculty alumnus and 2005 West Point graduate Captain David Zgonc reached back from his deployment as a Medical Service Corps officer in Afghanistan, asking for help identifying some minerals in the gravel used for roads that might be a human health risk. His knowledge of rocks and minerals had direct applications to his role in a deployed environment.

Many alumni fondly remember their experiences while learning Physical Geology or teaching it as members of G&EnE's faculty. The department has collected stories from a wide range of people, from astronauts such as Colonel Andrew Morgan '98 MD, to professors at colleges across the country such as Gellasch and Colonel Tom Timmes (Retired), to deans of colleges such as Dr. Marie Johnson at CSUF. If you have your own special memories of learning Physical Geology or attending the Geology Field Course at West Point, G&EnE would love to hear from you to capture your story. Please contact the authors at Mindy.Kimball@WestPoint.edu or Benjamin.Wallen@WestPoint.edu to add your very well-rounded cobble of history to the rock layers that tell the story of Physical Geology at West Point. ★

ARMY-NAVY WEEKEND 2019



ARMY NAVY TAILGATE



WPAOG RECEPTION

GO ARMY™ BEAT NAVY™



#SinkNavy



PENTAGON



MARATHON TEAM BALL RUN

OLD SOLDIERS' HOME VISIT

PATRIOT GAMES



BATTLE OF THE BANDS

In the 120th Army-Navy Game on December 14, Army West Point fell to rival Navy, 31-7, at Lincoln Financial Field in Philadelphia. Despite the final score, the weekend was full of spirit and camaraderie. The WPAOG Pre-Game Tailgate was the largest ever, with over 1,700 spirited Army fans taking part in the fun. The Army uniform honored the 1st Cavalry Division and the birth of airmobility during the Vietnam War. Almost 70,000 energetic fans crowded the stadium to experience "America's Game," one of the most famous rivalries in sports. Gray skies and light rain didn't dampen the legendary traditions and pageantry of the game, from the March On and Prisoner Exchange to the "Alma Mater," as grads, cadets, parents, fans and U.S. Army leadership united to cheer on the Brave Old Army Team. ★



ARMY-NAVY WEEKEND 2019



NOISE!!





GAME TIME



Photos: Erika Norton/WPAOG; Robin Gottesman; Brandon O'Connor/USMA PAO





USMA 2020 Branch Night

On November 13, 2019, during the United States Military Academy's annual Branch Night, the members of the Class of 2020 learned in which of the Army's 17 branches they will be serving after graduation. Graduates from the 50-Year Affiliation Class of 1970 were on hand during the ceremony to present the cadets with their "first brass" branch insignia pins. Nearly 90 percent of the Class of 2020 received their first choice of branch, an increase of 11 percent from last year (and 96 percent received one of their top three choices). For the first time in its history, the Academy used the Army's new Market Model Branching System to complete branch assignments, allowing branch commandants to have a vote in which cadets receive that branch. When the allocations were complete, 80 percent of the Class of 2020 branched combat arms (86 percent of males and 56 percent of females), which now includes the Cyber branch, in addition to Air Defense, Aviation, Armor, Field Artillery, Engineers and Infantry. ★

Top left: Upon the command of "Don your branch insignia!" the firsties packed into Robinson Auditorium tore open the sealed envelopes holding their branch assignments. **Top right:** CDT Jeff "JR" Reffert '20 and COL(R) Frank J. Monaco '70 memorialize the moment with a Branch Night selfie. **Center:** Members of the Class of 1970, USMA 2020's 50-Year Affiliate Class, pictured with Class of 2020 leadership, including First Captain Daine Van de Wall. Also pictured at right: Cathy Kilner '90, WPAOG Director of Class Services, who manages the 50-Year Affiliation Program.

BRANCH	ALLOCATIONS
Air Defense Artillery	61
Armor	114
Aviation	109
Engineers	142
Field Artillery	178
Infantry	227
Adjutant General	2
Chemical	2
Cyber	40
Finance	7
Military Intelligence	59
Military Police	18
Medical Services	7
Ordnance	36
Quartermaster	26
Signal Corps	43
Transportation	24

MAILBOX *West Point*



We regret that because of limited space, we cannot publish all letters received.

Letters may be edited and shortened for space. Submit comments or questions to Editor@wpaog.org, or chat with us on one of our WPAOG social media channels.

FROM: LTC (R) Charlie B. Ryneanson Jr. '74

I enjoy *West Point* magazine very much. Thank you. I do have a comment: On page 36 of the 2019 Fall issue, there is a picture of a cadet holding a 105mm round. Unfortunately, he is holding it improperly. His left hand is too close to the fuse. This creates a risk of buckling the cartridge near the top of the canister. We were taught to support the weight of the projectile at its center of gravity to prevent this.

RESPONSE:

Thank you for your letter. The photograph you referenced appears in a photo essay on Summer Training 2019, which is run by the Department of Military Instruction (DMI). Because of this, we reached out to COL Alan Boyer '96, DMI 6, for comment.

According to COL Boyer: "During Cadet Field Training, cadets conduct two days of Indirect Fire training, which includes instruction on the proper way to handle both 105mm rounds, and mortar rounds as well. This training is supported by Task Force Soldiers and NCOs who closely observe and make corrections when cadets improperly handle any ammunition during its employment. As many pictures are taken during Cadet Summer Training, there are instances where training deficiencies are captured before corrections are made. All cadre involved with Cadet Field Training take safety precautions seriously and are vigilant in the proper execution of safety standards with the utmost concern."

FROM: Robert F. Bluthardt, Site Manager, Fort Concho National Historic Landmark, San Angelo, TX

"Be Thou at Peace, Henry O. Flipper" by Kim McDermott in the 2019 Fall issue is an inspiring article that illustrates the value of our shared heritage and how good people like David Rich make extraordinary efforts to preserve it. After serving at Fort Sill, Flipper was transferred to Fort Concho, Texas, where the 10th Regiment of Cavalry was headquartered. During Flipper's short stay at Fort Concho, he participated in the campaign against Chief Victorio and lent his commander, Colonel Benjamin Grierson, key service

that led to Victorio being driven back into Mexico, where he was defeated by local forces. The village of San Angelo grew into a major West Texas city and, 140 years after he served here, still remembers Flipper's contributions. Twenty years ago, the Fort Concho Museum Board proposed to the San Angelo City Council that Avenue B on the fort's north side be renamed Henry O. Flipper Street. Today, that street runs by the fort's two remaining stables, where cavalry troopers in Flipper's era stabled their horses.

RESPONSE:

Thanks for sharing, Robert. At one point in the article you cite, Flipper asks, "Dave, have they forgotten me?" Your report confirms that Flipper has indeed not been forgotten. ★

OFFICIAL CLASS RING SUPPLIER OF THE UNITED STATES MILITARY ACADEMY

1943 1944 1945 1946 1947 1948 1950 1951 1952 1953 1954 1955
1956 1958 1960 1961 1962 1963 1964 1965 1966 1968 1969 1970
1971 1975 1976 1977 1979 1981 1982 1984 1985 1986 1988 1999
2003 2004 2005 2006 2010 2011 2012 2013 2014 2020



Balfour can replace Class Rings, Miniatures and Wedding Bands for the above listed back dated classes.

Contact Jayne Roland at

(201) 262-8800 or

balfourna@optonline.net

0319. 28989 ©2019 Balfour. All Rights Reserved

balfour



The mission of the West Point Parachute Team is to educate, train, and inspire cadets to develop leadership skills and build self-confidence in an *in extremis* context. West Point accomplishes this by providing the opportunity to work toward three specific and challenging goals: training freefall students, conducting precision freefall demonstrations, and competing and winning at the national level.

Because the team is called upon for outreach demonstrations, West Point considers it a "support club," with professional oversight from the Deputy Commandant and some noncommissioned officers assigned to USCC. One of its missions as a support club is to "jump in" the game ball for home football games. However, the team also competes in the U.S. Parachute Association (USPA) National Collegiate Parachuting Championships over the holiday break, going head-to-head against the U.S. Air Force Academy and other schools that have sport parachute teams. Approximately 75 collegiate skydivers compete in this event, the oldest and largest collegiate skydiving competition in the world. Consequently, the West Point Parachute Team is also considered one of the Department of Physical Education's "competitive clubs." With DPE support, they meet the requirement that every cadet will participate in one of the following divisions of sport: intercollegiate, competitive club or company athletics.



Founded in 1958, the West Point Parachute Team is currently composed of 36 cadets. To be selected for the team, cadets go through an extensive tryout—interview, fitness test, and wind tunnel exercise—during their plebe year. After earning their skydiver's license, they make their first solo jump during yearling year. By the time they graduate, West Point Parachute Team cadets have made over 500 jumps. According to Sergeant First Class Ian McGlynn, the team's noncommissioned officer in charge, cadets on the parachute team reach a level of proficiency, practicing six days a week in two-and-a-half years, that takes civilian jumpers 10 to 15 years to master. Their work has consistently paid off: the team has been National Collegiate Accuracy Champions several times (2010-13), won multiple gold medals at the USPA championship (2017-18), and even set national records (completing a six-person formation in a mere 8.56 seconds after exiting the plane in 2018, which shattered the team's own record of 9.16 seconds achieved in 2017).

As the following article demonstrates, the lessons and *in extremis* actions of the West Point Parachute Team have had a profound impact on the success of three particular graduates.

Top: The members of West Point Scheme Team 6 (McKenzie Bell '19, Michael Colella '19, William Derrick '19, Johnathon Muraski '19, Thomas Rounds '19 and Jeremy Stanley '19) smile for the camera on their way to taking gold in 6-way speed formation skydiving at the 2018 USPA National Collegiate Parachuting Championships at Skydive Arizona in Eloy. **Left:** Members of the West Point Parachute Team had a very successful outing at the 2018 USPA National Collegiate Parachuting Championships at Skydive Arizona in Eloy, winning multiple gold medals and setting a new national record for six-way formation skydiving by completing a formation in 8.56 seconds.

West Point Parachute Team: Where Astronauts Learn to Fly

By **Brandon O'Connor**, Guest Writer

On the precipice 240 miles above the earth, Jeff Williams '80 was ready to enter into the void.

It was a feeling he'd become used to over the years—solid ground beneath your feet, nothing but empty air across the ledge. But this time it was different. This was no helicopter flying over the U.S. Military Academy's Camp Buckner where he had jumped countless times as a member of what was then called the West Point Sport Parachute Club/Team. It was now the year 2000, and he was about to step off the Space Shuttle for a seven-hour spacewalk to continue the process of constructing the International Space Station.

At the end of his plebe year in 1977 he found the Sport Parachute Team. At the same time, his cadet sponsor was the commander of the Academy's aviation detachment. By leaving the ground and soaring through the air, Williams found the balance needed to be successful at West Point. His sponsor and the other members of the aviation detachment taught him about their experience flying in Vietnam and introduced him to Army aviation, while the Sport Parachute Team brought him friends and adventure.

It was during those years when Williams first considered the idea of being not just an Army pilot, but an astronaut. During his cow year at the Academy, Brigadier General Bob Stewart was selected to become a NASA astronaut, the first active duty Army officer selected by NASA. A visit by Stewart to West Point, time spent

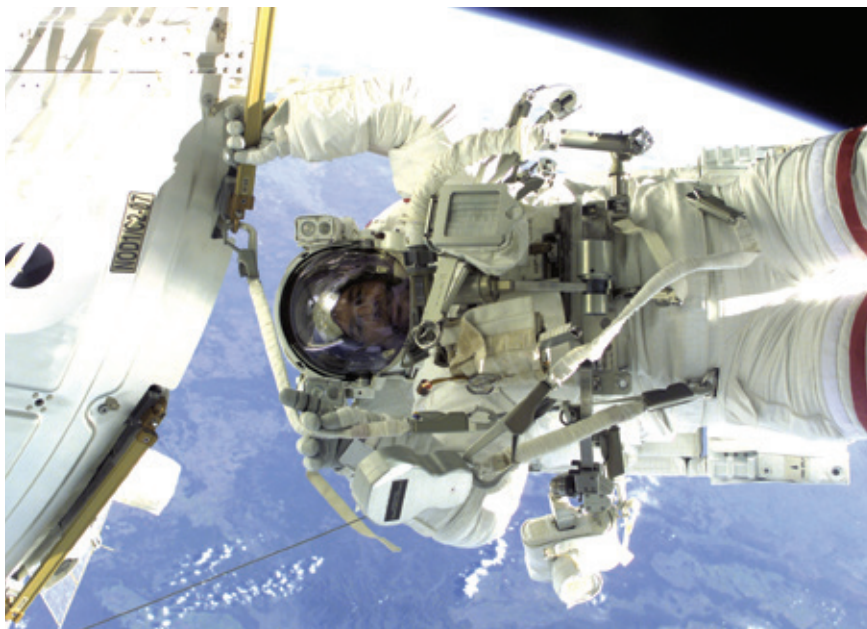
with future astronaut James Adamson '69, who was teaching at West Point at the time, and reading *The Right Stuff* by Tom Wolfe opened Williams' eyes to the possibility of space flight, much as joining the Sport Parachute Team had first peaked his interest in being a pilot.

Following graduation, Williams was a helicopter pilot, but the astronaut program was never far from his mind. He applied for the first time in 1985 and would go on to apply five more times over 10 years before being selected as a member of the astronaut class of 1996. "It is a good lesson I try to communicate to folks," Williams said of applying six times and interviewing three. "One, to persevere with your goals and two, don't take the disappointments personally because they're usually not personal."

Williams logged more than 534 days in space, including nearly 32 hours performing spacewalks during his trips. It is in those experiences where his time spent training with the Parachute Team really came full circle to help him succeed. The ability to control his body, move through the air and deal with important tasks while in a risky environment were all skills learned a few thousand feet above Camp Buckner, then applied a couple hundred miles above earth. Williams is still flight ready and on the astronaut roster, but his days of launching into space have likely come and gone following 534 days in space. The pathway from the West Point Parachute Team to the International Space Station continues, though.

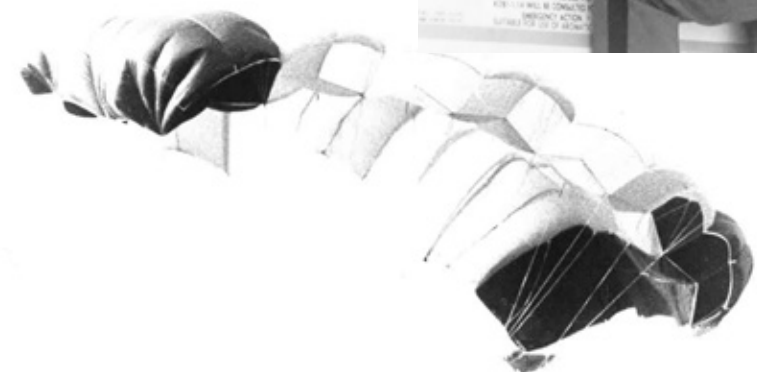


NASA astronaut and Expedition 48 Commander Jeff Williams '80 surpassed 520 days living in space in August 2016.



Left: Jeff Williams '80 takes part in a spacewalk during STS-101, his first trip to space in May 2000 when he launched on the space shuttle Atlantis. **Above:** Williams in official NASA Astronaut portrait.

Right: CDT Jeff Williams '80 looks over Astronaut Bob Stewart's T-38 Talon at Stewart Field, Newburgh, NY, circa 1978-79.
Below: Williams lands a parachute jump while a member of the West Point Parachute Team, circa 1979 or 1980.



Their paths to NASA were different, but Drew Morgan and Frank Rubio, both Class of 1998 and four-year members of the West Point Parachute Team, learned to fly together. The two made their first jumps on the same day, and although their Army careers took them to different places, their paths have at times run parallel, with both attending medical school and now both serving NASA as astronauts.

As plebes at the Academy, Morgan and Rubio found their way to the Parachute Team. For Morgan, it was a continuation of a family legacy. His great uncle Harry McClintock, a member of the 101st Airborne Division, jumped into Normandy on D-Day. Rubio came to the Academy for the education, initially playing Sprint Football then joining the Parachute Team once he heard about it.

Morgan is currently orbiting earth aboard the International Space Station during his first mission to space. He launched to the space station in July as a flight engineer. On August 21, 2019 he followed in Williams' footsteps and made the ultimate skydive into space for his first spacewalk. "That camaraderie that we had (on the Parachute Team) and that dependency we had on each other, making sure that we were skilled in the aircraft and skilled in the air, our lives depended on each other to do safety checks of each other...I think about how 20 years ago, I was developing those skills at an early age and didn't even know it," Morgan said in a NASA interview.

While being an astronaut was always Morgan's goal, it had only registered as a slight possibility to Rubio. That changed in 2017 with a phone call from his former parachute teammate. NASA was accepting a new class of astronauts and Morgan reached out to encourage him to apply. "I was pursuing my own dreams of being a special operations surgeon," Rubio said. "When Drew gave me a quick call to say I should consider trying out...I began to think about it at length." Rubio applied and was accepted as a member of the astronaut class of 2017.

Current members of the West Point Parachute Team hone their skills much as their three predecessors did as cadets: Grab your parachute, fist pump the 2nd Aviation pilot, ascend to 3,000 feet, jump, land, fold up your parachute and do it all over again. Jump



Top, left: The 1995 West Point Parachute Team, which included future astronauts Frank Rubio '98 (left) and Drew Morgan '98 (center left). **Above, left:** In a photo sent exclusively to WPAOG, Astronaut Drew Morgan '98 is seen in quarantine prior to his July 2019 ISS launch with fellow USMA Astronauts Frank Rubio '98 and Shane Kimbrough '89 as well as fellow West Point Parachute Team members (in royal blue shirts) Robb Gosling '99 and Michael Nordeen '98. **Top, right:** COL Andrew Morgan '98, performs his first spacewalk outside the International Space Station to install the orbiting lab's second commercial crew vehicle docking port in August 2019. **Above, center:** Official portrait of NASA astronaut COL Andrew Morgan '98 MD in a U.S. spacesuit, also known as an Extravehicular Mobility Unit (EMU). **Above, right:** CDT Drew Morgan '98 at his first parachute jump for West Point, circa 1995.

after jump the team grows closer and their skills improve. How to control your body, how to trust your equipment, how to function in a high stress environment—all of it pays dividends in the Army, but as Williams and Morgan have shown and Rubio will soon learn, it also prepares you for the moment on the ledge with the earth spread out before your eyes as you prepare to make the ultimate skydive.

“To me that means I have a chance, honestly, which I think is super cool,” says Cadet Matthew Blejwas '21, a current member of the Parachute Team and aspiring astronaut. “Right now, just being able to follow in the footsteps of people that are making these great bounds for us as a society and as humanity is really humbling. I recognize that I’m in a spot where I have an incredible opportunity, and I don’t take that lightly.” ★

Brandon O'Connor is the Assistant Editor of the Pointer View, West Point's civilian newspaper. A longer version of this article originally appeared in the September 19, 2019 edition of the Pointer View; it has been edited and printed with permission.

The West Point Parachute Team is supported by Margin of Excellence funding from donors. WPAOG is fundraising to increase the team's endowment to ensure its funding in perpetuity.



Former West Point parachute team member MAJ Frank Rubio '98, MD was selected by NASA to join the 2017 Astronaut Candidate Class.

Gripping Hands

“Grip hands—though it be from the shadows—while we swear as you did of yore, or living or dying, to honor the Corps, and the Corps, and the Corps.” —Bishop Shipman, 1902

1980

GEN(R) Perkins Awarded the Genesis Medal

GEN(R) David Perkins '80 was awarded the Genesis Medal from the National Purple Heart Honor Mission on October 3. He was decorated numerous times for his service, including the Silver Star, the nation's third highest award for valor in combat. Given annually, the Genesis Medal recognizes former Purple Heart recipients and others who have served their nation and supported the members of our Armed Forces with distinction.



2004

2005

Scher, Ferguson Named White House Fellows

On October 28, the White House named the 2019-2020 White House Fellows. Major Adam Scher '04 is placed at the White House Office of Management and Budget, and he most recently served as the aide-de-camp to the commander of all North Atlantic Treaty Organization and U.S. Forces in Afghanistan. Major Daniel “Max” Ferguson '05 is placed at the Department of State, and he most recently served as a special assistant to the 39th Chief of Staff of the United States Army.



★ ★ General Officer Announcements ★ ★

The following officers were confirmed by the Senate:

Colonel Curtis A. Buzzard '92 for promotion to the rank of Brigadier General

Major General Randy A. George '88 for appointment to the rank of Lieutenant General and assignment as Commanding General, I Corps, Joint Base Lewis-McChord, WA

Colonel Andrew C. Hilmes '95 for promotion to the rank of Brigadier General

Major General Daniel L. Karbler '87 for appointment to the rank of Lieutenant General and assignment as Commanding General, U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command, Redstone Arsenal, AL

Brigadier General Douglas A. Sims II '91 for promotion to the rank of Major General

Major General (USAR) Ricky L. Waddell '82 for appointment to the rank of Lieutenant General

The Chief of Staff of the Army announces the following officer assignments:

Brigadier General (P) Andrew J. Juknelis '88 to Commander (Troop Program Unit), 108th Training Command (Initial Entry Training), Charlotte, NC

Major General Richard C. Staats '84 to Commander (Troop Program Unit), 75th Innovation Command, Houston, TX

1948

Be Thou at Peace CPT Rufus J. Hyman

Several members of the Long Gray Line and four USMA cadets were present when the repatriated remains of CPT Rufus J. Hyman '48 were interred at Arlington National Cemetery on October 9. He was buried with Full Honors. The Defense POW/MIA Accounting Agency (DPAA) announced in April that Army Captain Rufus J. Hyman, 23, of Memphis, killed during the Korean War, was accounted for on February 20, 2019.



1940

Oldest Grad Receives Newest Class Ring

Close to 100 friends, family and members of the West Point Society of Washington, DC gathered in Arlington, Virginia in November to celebrate the 103rd birthday of West Point's oldest living graduate, Colonel (R) Raymond Renola, Class of 1940. In a special tribute at the party, BG (R) Kristin K. French '86 (below) presented COL Renola with a replacement Class of 1940 West Point class ring. Ray had lost his ring years ago while swimming, and his family knew how much the ring meant to him. So, they tracked down the jeweler in Pennsylvania that had the mold for the class ring. As a surprise for his 103rd birthday, the family had a replacement made for Ray, and Kristin presented it to him. As an added surprise, the West Point Alumni Glee Club (above, right) attended and sang "Happy Birthday," "On Brave Old Army Team," and the "Alma Mater."



Celebrating 30 years serving seniors.

The Fairfax is Northern Virginia's premier retirement community for military officers and their spouses. We welcome you to stop in to learn more about our rich history and discover how you can become a part of our future.

Visit RetireFairfax.com/WP
to learn more.


THE FAIRFAX
MONOGRAM COLLECTION BY SUNRISE

Developed for the Army Retirement
Residence Foundation-Potomac





West Point Authors Bookshelf

A West Point magazine supplement featuring books by West Point graduates and faculty.



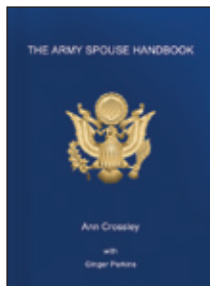
Tales of the Philippines— In the Early 1900's

By Simon Bolivar Buckner Jr.,
Class of 1908

General Buckner finished writing this non-fiction memoir while he was tactical officer West Point in the 1920's. It consists of over 80 short accounts about his pre-WW I experiences in the Philippines. These stories are wonderful, filled with high-jinks, laughter, and insights into the culture he experienced first-hand. The reading experience is enhanced by the book's numerous photographs.

His son, William C. Buckner (USMA 1948), added a preface, but he neither edited nor redacted his father's words.

Available at Amazon.com



The Army Spouse Handbook

By Ann Crossley with
Ginger Perkins, wife of
GEN (R) David Perkins '80 and
mother of Chad Perkins '13

A 21st Century Guide for the 21st Century Spouse. Guidance about the social graces that will make you comfortable in any situation. An easily understood description of the Army's structure and its unique culture and protocols for coffees, teas, balls, ceremonies, parades, changes of command and responsibility, including tips for entertaining with ease and flair—everything you need to know to make your life as an Army Spouse enjoyable and fulfilling!

Available at
www.armyspousehandbook.com



THE MIKE GROUP

By Gary E. Crowther
(ex-cadet, 1964)

Four retired Special Operations experts, disillusioned with U S government spending of their tax dollars, covertly impose their own priorities in the process. They inadvertently expose a rogue military operation. Weapons are fired, people die and a cover-up is launched.

Available at Amazon.com

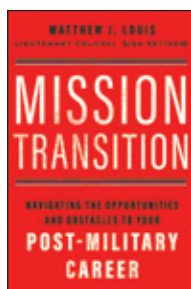


The Black Crusade

Armando Interiano '79

In the Central American wars of the 1980s, the Soviet Union had a stealth ally: the Jesuits with their Liberation Theology—the ultimate recruiting machine for guerrilla forces. They were successful in Nicaragua against Somoza, USMA '46, but unsuccessful in El Salvador. This is the story of why the Jesuits failed in El Salvador, as told by a Polish nun, two Spanish Jesuits, a Salvadoran Jesuit and a Salvadoran USMA grad. West Pointers who've read it call it "gripping." Available in Spanish also, as: "La Cruzada Negra."

Available at Amazon, B&N and other outlets

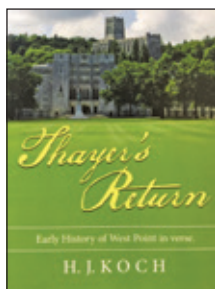


Mission Transition: Navigating the Opportunities and Obstacles to Your Post-Military Career

By Matthew J. Louis '91

Every year, about a quarter of a million veterans leave the military—most of whom are grossly unprepared for the transition. *Mission Transition* is an essential career-change guide for any transitioning veteran that wants to avoid false starts and make optimal career choices following active duty.

Available at Amazon.com



Thayer's Return Early History of West Point in Verse

By HJ KOCH, Husband of
Patricia (Savold) McKinley '81,
Father of Andrew McKinley '08,
Kathryn McKinley '11, and
Christopher McKinley '14

*First of its kind, historically accurate,
presented in verse.*

The Father of West Point, Sylvanus Thayer, has returned from the mist of history in the form of a ghost to seek an update of the academy from a cadet. As the two men converse over a number of nights, they lyrically explore the early history of West Point from its founding in 1802 until after the Civil War.

Available at LULU.com,
Amazon.com, HJ KOCH.com



Hunting the Caliphate

By Dana J.H. Pittard '81 and
Wes J. Bryant

In this vivid first-person narrative, a Special Operations Joint Terminal Attack Controller (JTAC) and his commanding general give fascinating and detailed accounts of America's fight against one of the most barbaric insurgencies the world has ever seen.

Hear the ground truth on the senior military and political interactions that shaped America's war against ISIS, a war unprecedented in both its methodology and its application of modern military technology.

Available at Amazon.com

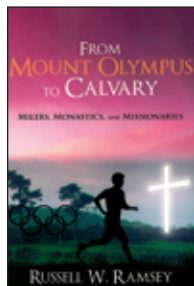


Solid Steps Through Shifting Sand

By Michael W. Rauhut '89

Solid Steps Through Shifting Sand is the intergenerational story of one immigrant family's journey from war-torn Europe to a land of promise and opportunity, made possible, in large measure, by U.S. Army Soldiers and the Nation they served. Rich in unique context, it explores meaningful themes through short, illustrative examples of faith, family, and self-sacrifice. These short stories from a long and guided trail of tests and wonders will enrich those who read them and apply their lessons.

Available at Amazon.com



From Mount Olympus to Calvary

By Russell W. Ramsey '57

Discipline and commitment were the core values for the Ancient Olympic Games. Resurrected in 1896 as the Modern Olympics, it did not take long for Christians to connect the ancient core values to modern Christian faith and salvation. These are biographies of twelve modern Christian athletes who personify the connecting of ideals from Mount Olympus with salvation at Calvary Hill.

Order from:
heatherv@AllegraNaples.com
3930 Domestic Avenue,
Naples, Florida 34104

Price: \$24.95 per copy



God's Joyful Runner

By Russell W. Ramsey '57

This is the family authorized biography of Eric Liddell, Scotland's greatest athlete. He was the Olympic champion in the 400 meter race at the Games in Paris, 1924. His missionary service to China ended with his tragic death in 1944. He was featured in the 4-Academy Award movie "Chariots of Fire" and serves as the role model to millions of Christian athletes.

Order from:
heatherv@AllegraNaples.com
3930 Domestic Avenue,
Naples, Florida 34104

Price: \$17.95 per copy



On Law and Country

By Russell W. Ramsey '57

Major General Russell A Ramsey commanded the Ohio Active Reserve Army Division for 18 years. Prior to that he was an Ohio National Guard Officer, serving by the end of World War 2 as Chief of Staff of the 37th Infantry Division. In civilian life, he was a staunch believer in the philosophy of Thomas Jefferson and James Madison regarding soldiers and democracy. He was a witnessing layperson of the Episcopalian faith all his life.

Order from:
heatherv@AllegraNaples.com
3930 Domestic Avenue,
Naples, Florida 34104

Price: \$14.95 per copy



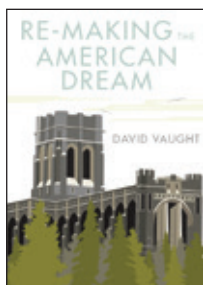
Next Mission:

U.S. Defense Attaché to France

By COL (R) Ralph R. "Rick" Steinke

Provides rare insights of military attaché duty during one of the most troubled periods of U.S.-France relations. It opens the world of high-level diplomatic experiences based on adversarial U.S. policies, personal relationships, and family life in one of the world's most captivating cities. Become Colonel Steinke's personal 'attaché' and walk with him through events that no international spy novelist could capture, no international fiction writer could develop, and no motion picture producer could film.

Available at Amazon.com



Re-Making the American Dream

By David Vaught '69

The author as a cadet appealed officially to the West Point chain of command for an end to compulsory chapel, then taking it to the Inspector General of the Army. After graduation, he testified in the federal case, *Anderson v. Laird*, where senior Defense Department officials continued their vigorous defense of compulsory chapel. This clash of values ending compulsory chapel resulted in a process of change that helped re-make the American Dream.

Available at Amazon and
Barnes and Noble.com

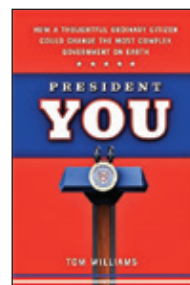


War Under the Mango Tree

By COL (R) Glenn Voelz '92

At a remote military camp in Africa, American soldiers are waging a high-tech manhunt against a notorious warlord. As the quixotic campaign unfolds, a cast of glory-seeking generals, rapacious mercenaries and corrupt officials are determined to get him, though each for different reasons. Meanwhile, a hapless band of compatriots race to discover the truth about the target before it's too late. A darkly painted satire of war, money, and corruption on the far-flung reaches of *Pax Americana*.

Available at Amazon.com



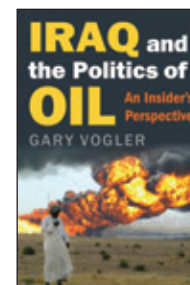
President You:

How a Thoughtful Ordinary Citizen Could Change the Most Complex Government on Earth.

By LTC (R) Tom Williams '73

Augustus Lincoln Treatise has a dream—solve some of America's thorniest problems. *President You* reaffirms ordinary citizens can have a profound impact on the life of our nation and, by extension, the world. It will get you thinking about roles and responsibilities of national government, issues affecting our collective and individual lives, and the power of each citizen to make enduring change.

Available at
allwetpublishing.com or
Amazon.com



Iraq and the Politics of Oil:

An Insider's Perspective

By Gary Vogler '73

Gary spent 5 months in prewar oil planning at the Pentagon followed by 75 months in Iraq executing oil reconstruction under DOD between 2003 and 2011. During all of this time and through 2014, he denied that our government had a hidden oil agenda in Iraq. While researching his book, Gary discovered something of significance. It was an oil plan that will surprise most Americans. The book is his attempt to correct history and set the record straight.

Available at Amazon.com

REASONER
FRANK S.
KIA RVN 1965

WHITTINGTON
DICK & ANNE
USA & USAF

IN HONOR OF
HARRIETT TODD BARRETT
MOTHER
HOMEMAKER
UNSELFISH VOLUNTEER
& HAPPY NEIGHBOR
1956

THOMAS
JEFFERSON
LEWIS 1879

LAWRENCE T &
SARA N DRUM
WED GRAD DAY

STORIES IN STONE: WPAOG's Brick and Paver Program

By Izzy Wolf, WPAOG staff

Next time you walk by Herbert Hall, take a moment to read the words beneath your feet. There are over 7,000 bricks and pavers surrounding the grounds of Herbert Alumni Center, with inscriptions varying from congratulating new graduates to remembering fallen classmates and commemorating a family legacy of West Point attendance. In an unexpected way, the inscriptions reflect the history of the United States Military Academy. As you read the bricks and pavers, from the earliest one installed to the present, they mirror the changes and events that affected West Point and its graduates. Wars, the creation of a new service academy, and women entering West Point can be traced through the red bricks and gray pavers.

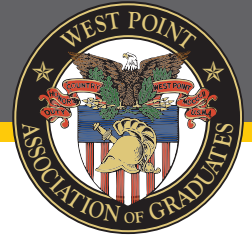
In the far corner of the back patio sits the brick from the earliest class to dedicate one: 1879. The bricks continue all the way to the Class of 2019, positioned at the opposite corner of the building's exterior. A quick walk around the building will show a prominent military history of battles fought. Veterans of both World Wars can be found in the inscriptions, including three graduates who fought in both. "KIA RVN" is not an uncommon phrase to find amongst '60s and '70s graduates who fought in Vietnam. In fact, you can find this phrase 96 times. Many of these bricks include a death date, often showing that the graduate had been out of the Academy only a few years before being killed in action. "POW" and "Purple Heart" inscriptions reinforce the sacrifices these graduates made. The only alumnus to be killed in Operation Desert Storm is honored by the Class of 1959, with a paver located above the flagpole that was donated by the class.

A look at the bricks from the '40s and '50s shows an acronym one may not expect to see at a college that produces Army officers: USAF. The Air Force moniker appears on many of the bricks, the earliest found in the 1917 section, with the number quickly declining after 1958. Those with a knowledge of our sister service academy know that this is because the first class graduated from the U.S. Air Force Academy in 1959, eliminating the need for West Point to commission Air Force officers. Some bricks in more recent classes still show the occasional cross commission, but the occurrences are far fewer.

The names of several women are mixed among bricks and pavers. Although the first class of women graduated from West Point in 1980, women's names are scattered throughout bricks of earlier classes. These bricks often express undying love to the wives and mothers who supported graduates throughout their military careers. "Wed Grad Day" reads one brick from a 1954 grad who married his wife the day he commissioned. "Mother, Homemaker, Unselfish Volunteer, & Happy Neighbor, 1956" reads another. As the years progress, a new sight appears—the names of women with a class year inscribed with them. One paver in particular pays tribute to three sisters from the Grey family who all graduated in the '80s by playfully referring to them as "The Long Grey Line." Three pavers honoring the first female Rangers can be found together as well. Within a few feet, the descriptions of women shift from wives of soldiers to soldiers themselves.

In part, the bricks also parallel changes made at the West Point Association of Graduates. While the Brick and Paver program is not nearly as old as USMA, recent changes have brought the program into the 21st century. Orders that were once submitted by mail and paid by check are now done online with credit cards. There is also an online map, created with the help of Lieutenant Colonel Jared Ware (Retired), a 1993 grad and former Department of Geography and Environmental Engineering professor, allowing purchasers to locate their brick or paver.

At first glance, the bricks are simply a way to honor a West Point graduate. The red bricks are uniform and grouped by graduation year, not unlike the graduate's time as a cadet, but, upon closer examination, they represent something much bigger. By leaving their own legacy, often within just 36 characters, the bricks of individual graduates placed side by side have come together to craft a united story of West Point history. Through this unexpected synchronicity, a path of West Point history is inscribed right beneath your feet. Next time you visit Herbert Hall, just look down to see this remarkable timeline, a testimonial to the Long Gray Line. ★



WPAOG's Enhanced Career Services Marks Highly Successful First Year

Have you heard? The West Point Association of Graduates has a new, enhanced Career Services program. Officially launched in April 2019 in response to a growing number of graduate requests for career assistance, the program helps grads—whether transitioning from the military to the civilian job market, switching jobs mid-career, or re-entering the job market at a different stage of life—become successful job seekers and gain access to opportunities within WPAOG's ever-expanding network. To date, the program, which introduces several new features for grads and improves on the benefits Career Services has traditionally offered, has helped place 165 grads into new positions.

The Career Services Team

WPAOG now has three full-time employees dedicated to Career Services, and all three are West Point graduates: Miguel Gutierrez '80, Director, and Scott Leishman '77 and Julia Ruddock '07, Assistant Directors. Based on their own West Point, Army and industry experiences, they are all deeply aware of graduates' strengths and are familiar with the challenges and opportunities grads are likely to encounter in their job search. Grads are paired with a member of WPAOG's Career Services team who will assist them through the stages of a successful job search, particularly developing a strategy and networking.

The WPAOG Network

Complementing WPAOG's team of career services experts is an Industry Network of graduate advisors who can offer tailored advice to job-seeking grads in a variety of industries, as well as a Geographical Network of regional graduate advisors operating through local West Point Societies. WPAOG serves as the "hub" of these networks, forging and facilitating connections among job seekers, corporations, and grad advisors willing to help fellow members of the Long Gray Line.

Access to Personalized Service via Korn Ferry Advance

WPAOG also partnered with Korn Ferry, a top global executive search firm, to offer professional career counseling services to grads. Through a program called "Korn Ferry Advance," grads have access to career coaches and tools designed to help them navigate toward a new job, a promotion, or a new industry. Korn Ferry Advance's portfolio of customized services also includes self-assessment analyses, resume preparation tips, personal coaching, interview preparation, and compensation counseling.

WPAOGcareers.org

In 2019, WPAOG Career Services launched a new website, paired with Handshake. Handshake allows graduates to explore and apply for job openings, connect with employer partners and other grads on the platform, and learn about new career options. It also offers new features that enables grads to access personalized job recommendations based on their online career interests profile, build and promote their resume and other "personal brand" marketing materials (e.g., social media profiles), research employers that recruit grads through WPAOG's Career Services, and more. The Handshake platform also benefits Career Services, giving team members administrative functions that allow them to better assist and guide graduates seeking jobs.

Service Academy Career Conferences (SACC)

WPAOG Career Services' longest running and most successful program is the Service Academy Career Conference (SACC). Held quarterly and hosted exclusively for West Point graduates and alumni of the other four federal service academies, SACC allows attendees to develop and grow relationships with recruiting professionals and hiring managers from approximately 100-200 employers across a variety of industries. Semi-private "interview" tables are also provided at each venue, allowing attendees to speak with employer contacts personally about their unique value proposition, even if the job they desire is not officially posted.

Grads wanting more information on how WPAOG Career Services can benefit them are encouraged to send an email to careers@wpaog.org. Kevin Scott '97 did so, and he now has a job with the MITRE Corporation. "I found them to be very helpful in networking, in finding my value in the job market, and in linking me up with interested employers," Scott said of WPAOG Career Services. "I would definitely refer fellow grads (as I have already)." ★

WPAOG's new enhanced Career Services have been made possible through the generous support of Roland C. Smith '78, Robb E. Turner '84, Ken C. Hicks '74, Darcy G. Anderson '78 and Michael Franzino '71. A special thanks to Korn Ferry for its support of the program.



West Point
ASSOCIATION
OF GRADUATES
CAREER SERVICES

For more information on this program, please contact a member of WPAOG's Career Services team at careers@wpaog.org

WPAOG News

WPAOG Annual Meeting Election Results

At the WPAOG Annual Meeting on November 19, 2019, the following members were elected to positions on the Board of Directors and the Advisory Council.

To serve their terms from Jan 1, 2020 to Dec 31, 2021:

Chair: Joseph E. DeFrancisco '65

Vice Chair: Stanley J. Shipley '73

To serve their terms from Jan 1, 2020 to Dec 31, 2022:

Directors:

Keirn C. Brown Jr. '69

Jeffrey A. Sorenson '73

Clyde A. (Pete) Selleck III '77

Herman E. Bulls '78

Peter Carey '92

Advisors-at-Large:

Kip P. Nygren '69

Mark W. House '80

Joseph A. Simonelli Jr. '87

Jon E. Tellier '89

Stephen B. Rubright '97

Thomas W. Oakley '00

To serve his term from Jan 1, 2020 to Dec 31, 2021:

Director: Robert P. Kane Jr. '73

Graduates wishing to serve the Long Gray Line can learn more about the responsibilities of Directors and Advisors online at:

WestPointAOG.org/ResponsibilitiesofBoardMembers.

WPAOG Hosts Annual Cadet Class Officer Reception

On September 25, the WPAOG Class Services team hosted a breakfast for the Class Officers from the USMA Classes of 2020, 2021, 2022 and 2023. At the breakfast, cadets had the opportunity to meet with WPAOG staff and others from the Academy with whom they will work. Following the breakfast, breakout sessions were held for each of the different classes for the class officers to engage in discussions of how WPAOG serves them and their classmates while they are at the Academy and in the decades ahead.



17th Diversity Conference: Embracing the Differences Among Us

The 17th West Point Diversity and Inclusion Leadership Conference began September 19 with remarks from LTG Darryl Williams '83, Superintendent, and the USMA leadership team. Themed "Embracing the Differences Among Us," the three-day event brought together cadets, staff and faculty, and alumni, as well as representatives from academia, business, the U.S. Army, and sister services. The keynote speaker was GEN(R) Vincent Brooks '80.



GEN Brooks pictured with Todd Browne '85, WPAOG President & CEO; LTG Darryl A. Williams '83, USMA Superintendent; and Terry Allbritton, USMA Chief Diversity Officer.

Announcement of WPAOG 2020 Annual Meeting

The Annual Meeting of the membership of the West Point Association of Graduates shall take place on Tuesday, November 17, 2020 at 5pm Eastern Time at the Herbert Alumni Center, West Point, New York. At the Annual Meeting, the 2020 election of members of the Board of Directors and at-large members of the Advisory Council shall take place. Information on the nomination process for Director and Advisor-at-Large positions is published at **WestPointAOG.org/nominationpolicy.**



USMA 1979 Presents \$1M 40th Reunion Gift

On September 21 during the Army v. Morgan State game, the Class of 1979 presented a 40th Reunion Gift of \$1,000,000 to support the Cyber and Engineering Academic Center (CEAC). Mr. Gary Butler '79, Class President, and COL (R) Mario Wozniak '79, Class Treasurer and Fundraising Chairman, presented the gift on behalf of the Class to LTG Darryl A. Williams '83, 60th Superintendent, and Todd Browne '85, WPAOG President and CEO. Thank you to the Class of 1979 for your tremendous support of West Point—Top of the Line!



Class of 1994 Presents Record 25th Reunion Gift

During the Army victory over the University of Massachusetts on November 9, the Class of 1994 presented a record 25th Reunion Gift of \$1,094,000 to support the Center for Oral History and the Department of Physical Education. Class President Brandi Peasley and Class Vice President E.G. Fishburne presented the gift on behalf of the Class to LTG Darryl A. Williams '83, 60th Superintendent, CSM Jack H. Love, and Todd Browne '85, WPAOG President and CEO. Thank you to the Class of 1994 for your tremendous support of West Point—With Courage We Soar, '94!



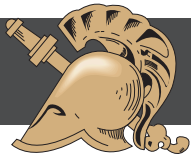
Class of 1999 Presents \$500K 20th Reunion Gift

During the Homecoming Army v. Tulane game on October 5, the Class of 1999 presented a 20th Reunion Gift of \$500,000 to LTG Darryl A. Williams '83, 60th Superintendent USMA CSM Jack H. Love and Todd Browne '85, WPAOG President and CEO, to support the Academy. Class Vice President Robert Shaw and Class Historian Shannon Whiteman presented a check on behalf of The Class of 1999 to support the Modern War Institute and the Academy Scholars Program. Thank you Class of 1999 for your outstanding support of West Point—With Duty in Mind!



USMA 2009 Presents Record 10th Reunion Gift

On October 5 at the Homecoming Army v. Tulane game, the Class of 2009 presented a record 10th Reunion Gift of \$750,000 to support the Cyber and Engineering Academic Center (CEAC). Class President AJ Pulaski and Class Fundraising Chair Stephen Astemborski presented the gift on behalf of the Class to LTG Darryl A. Williams '83, 60th Superintendent; USMA CSM Jack H. Love, and Todd Browne '85, President and CEO of the West Point Association of Graduates. Thank you to the Class of 2009 for your outstanding support of West Point—For Your Freedom and Mine!



West Point Parents Clubs Host Tailgates and Present Donations on Family Weekend

October 25-27 was Family Weekend, where cadet parents, grandparents, and family members were invited to learn more about cadet life and West Point. The weekend included academic presentations, tours, cadet demonstrations, information on athletics and clubs, and the Army v. San Jose State football game. Cadets were able to escort their families and provide a view of West Point from the cadet perspective. WPAOG sponsored coffee on Friday at the Family Weekend Welcome Center, and on Saturday, various West Point Parents Clubs hosted tailgates all around campus for cadets and their families. The WPPC of Greater Houston and the WPPC of Northern Texas jointly hosted the 17th Annual Texas Tamale

Tailgate (T3) immediately after the football game at the '49er Lodge, with country music and familiar tastes of Texas BBQ and tamales. WPPCs of Alabama, Georgia, Michigan, Minnesota, North Carolina, and Wisconsin also hosted Saturday tailgates with unique regional foods. In support of the West Point Parents Fund, the WPPC of Greater Houston and WPPC of Northern Texas presented a check for \$2,000 and the WPPC of Michigan presented a check for \$1,500. Shelisa Baskerville, WPAOG Parent Giving Officer, and Deb Dalton, USMA Parent Communications Liaison, accepted on behalf of WPAOG and the Academy.



West Point Parents Present Gift of \$2.9M to Support Margin of Excellence

During the Army v. San Jose State game on October 26, Jackie Jimenez P'20, Cattie Kim P'21, Dirk Dodson P'22, and Ken Jaycox P'23 represented West Point Parents and presented a check for \$2,900,000 to the Academy. Joining them on the field was the President and CEO of the West Point Association of Graduates, Todd Browne '85, and Shelisa Baskerville, WPAOG Annual Giving Parent Relations Manager. Accepting on behalf of West Point was Command Sergeant Major Jack H. Love. This generous gift raised by West Point Parents will support Margin of Excellence programs which allow all cadets to reach their highest potential. Thank you to all our parents and families for their incredible support!



START*the*DAYS!

FEBRUARY	MARCH	APRIL
1/31 – 2/1 Yearling Winter Weekend USMA 2022	6-8 Plebe-Parent Weekend	
5 Post Night USMA 2020	6-15 Spring Break for the USCC	
6 Henry O. Flipper (1877) Dinner	16 West Point Founders Day	
14-15 100th Night Weekend USMA 2020	19-22 McDonald Conference for Leaders of Character	
21 Brigade Boxing Open		25 Retiree Appreciation Day
27 USCC Founders Day Dinner		4/27-5/1 Commitment to Service Week
		30 Donor Tribute Day/Projects Day

Upcoming events suggested by West Point staff & faculty.

Events for May – July 2020 should be sent to editor@wpaog.org by Feb 15, 2020

For the entire calendar, go to

WestPointAOG.org/calendar

ENTERING OUR 46TH YEAR...THE SHOW WILL GO ON!

DIABOLO - Apr 26
"America's Got Talent" finalists

PRAISE AT THE POINT - May 2
Cadet Inspired Concert feat. CeCe Winans, Hezekiah Walker, plus MCs Melba Moore, Wash Allen and notable Gospel Choirs

BATTLEGROUND TALENT SHOWCASE - May 16
Grand finale of the 9-month search for the top talent in the Hudson Valley

I LOVE THE 90's TOUR - Jun 20
feat. Vanilla Ice, Rob Base, Young MC, Tone Loc, Kid N Play, All-for-One, Montell Jordan, CeCe Peniston

SPRING

AMERICA'S Theatre

2020

WEST POINT

**VISIT
IKEHALL.COM FOR
FULL SEASON
SCHEDULE**

Follow us on
Facebook/Twitter/Instagram

Be Thou at Peace

Deaths reported from September 10 — December 10, 2019

Mr. Thomas H. Williams Jr.	1949	COL Bob D. Schuler USA, Retired	1956	COL Robert L. McGarity Jr. USA, Retired	1963
COL Albert L. Romaneski USA, Retired	1950	LTC Aubra N. Bone USA, Retired	1957	COL Thomas N. Cunningham USA, Retired	1964
Lt Col Ralph W. Stephenson Jr. USAF, Retired	1950	Lt Col Ralph W. Stephenson USAF, Retired	1957	Lt Col John W. Raymond USAF, Retired	1964
GEN Volney F. Warner USA, Retired	1950	COL Donald S. Tribe USA, Retired	1957	LTC Ray D. Spinosa USA, Retired	1964
Col Kenneth F. Hite USAF, Retired	1951	Dr. Donald R. Garrett	1958	Mr. Dennis E. Hawker	1965
COL John R. Hook USA, Retired	1951	Dr. Harold C. Lyon Jr.	1958	Mr. Omar E. Rood Jr.	1965
Mr. George P. Scheuerlein	1951	LTC Thomas M. Thompson Jr. USA, Retired	1958	Mr. John T. Thomasson	1965
COL William Spence Jr. AUS, Retired	1951	Mr. Richard O. Roberts	1959	MG John C. Thompson USA, Retired	1965
Lt Col Elmer G. Pahre USAF, Retired	1952	COL Bruce E. Schmacker USA, Retired	1959	LTC Michael C. Winton USA, Retired	1967
COL Milton D. Sullivan USA, Retired	1952	LTC Wilsie H. Adams Jr. USA, Retired	1960	Mr. Charles F. Hawkins	1968
COL James F. Bleecker USA, Retired	1953	Mr. William F. Dawdy	1960	LTC Thomas A. Henderson USA, Retired	1969
BG William B. Burdeshaw USA, Retired	1953	Mr. Charles R. Neely	1960	Mr. Donald J. Coleman	1971
LTC William M. Jewell Jr. USA, Retired	1953	Mr. Joseph M. Robinson	1960	Mr. Joseph A. Halloran	1971
COL Robert J. Laflam USA, Retired	1953	COL Daniel W. Shimek USA, Retired	1960	Mr. Keith V. Von Seggern	1971
Mr. Warren J. Alverson	1954	COL W. Scott Dillard USA, Retired	1961	LTC Stephen F. Wilcox USA, Retired	1971
LTC Edgar E. DeMaris USA, Retired	1955	Mr. M. Reid Russell	1961	COL Lee R. Barnes Jr. USA, Retired	1972
COL Jack Goldstein USA, Retired	1955	Mr. William P. Cannon	1962	MAJ Patrick O. Richardson USA, Retired	1973
Brig Gen Delbert H. Jacobs USAF, Retired	1955	Mr. Frank J. Caufield	1962	Mr. Thomas A. Bradshaw	1974
Mr. Stephen A. Matuszak	1955	Mr. Ervin F. Kamm Jr.	1962	LTC Leigh W. Wacenske USA, Retired	1978
Mr. Louis V. Pace	1955	COL Richard S. Kent USA, Retired	1962	COL Alfred A. Coppola USA, Retired	1981
LTC James H. Ryan USA, Retired	1955	Mr. James L. Redmond	1962	COL James J. Meskill Jr. USA, Retired	1987
Mr. Robert L. Wallis	1955	COL William A. Scherr III USA, Retired	1962	Mr. Justin A. Fregia	2000
LTC James S. Bauchspies USA, Retired	1956	Col Michael G. Schredl USAF, Retired	1962	CPT Russell M. Raines USA	2008
Mr. Joseph E. Ragland	1956	Mr. Charles D. Swick	1962		



In Memoriam

Cadet Kade Kurita

Class of 2021

H Company, First Regiment

1999 – 2019

Be Thou At Peace



Todd A. Browne '85 (left), President and CEO, West Point Association of Graduates and Katie Pace (right), Outreach Coordinator for the Rockbound Highland Home Program, pose with Chris Simpson '96 and his wife Molly. Chris was the first retiree to participate in a Grad Insider Tour as part of the Military Retiree Recognition Program.

Military Retiree Recognition Program

WPAOG's new Military Retiree Recognition Program honors our military retirees for their service and sacrifice. If you retired on October 1, 2017 or later, you are eligible for a free Grad Insider Tour for you and three guests, as well as a free night at The Hotel Thayer, subject to restrictions. We will also publish your name in *West Point* magazine, with your permission. If you wish to participate, please contact retiree@wpaog.org to learn more.

The following graduates retired from active, reserve, or National Guard duty. We thank them for serving this great nation, and the Association looks forward to serving you. ★

<i>Name</i>	<i>Class</i>
COL George H. Sarabia	1989
COL Kyle E. Feger	1992
COL Jose L. Polanco	1994
LTC Mickey S. Cho	1995
LTC Joseph E. Anderson	1999
LTC Jamie W. Uptgraft	1999



West Point | ASSOCIATION OF GRADUATES

Past in Review



How Army's Mascot Came to Be

By **Doug Doan '79, Rick McPeak '79 and Scotty Autin '02**, Guest Writers

On December 2, 1899, Colonel Gonzalez Bingham woke up with a smile. As the quartermaster of the Schuylkill Arsenal in Philadelphia, Pennsylvania, he had plans to attend the first Army-Navy Game to be played in that city. Adding to the excitement and anticipation of a big game was the fact that the Army-Navy Game had been not been played in six years. President Grover Cleveland decided to halt the game when fights broke out after the 1893 game, believing that the interservice rivalry had gotten out of control. Slowly, over the next few years, support for resuming the game grew, and it was decided to renew the tradition on December 2, 1899 at Franklin Field in Philadelphia, one of the few places with a stadium large enough to handle the expected crowds.

When the big day arrived, everyone was on their best behavior. Army and Navy sent bands down Philadelphia's Market Street prior to the game. Debutantes, city officials, old Civil War veterans and cabinet officers up from Washington, DC made their way to the stadium. It was the biggest day in sports the nation had seen, and tickets had long ago sold out.

What fans did not know was that Bingham had a secret. A big one! He had been scheming and planning for weeks to do something to delight the crowd, rally the cadets, and inspire the team. Colonel

Gonzalez Bingham was about to introduce the very first Army Mule as the mascot of West Point. Up until the 1899 game, Army had never had a mascot. Worse yet, Navy had for several years adopted a goat as their mascot. In fact, legend has it that the first Navy Goat was actually a pet goat "borrowed" from the backyard of a West Point faculty member by a Navy fan and dragged off to the game, which was the first Army-Navy Game played on the West Point Plain. While the details have been lost and history has turned to legend, all West Pointers know that the story fits everything they know about Navy, so the tale must be a stone-cold fact! West Point grads might feel some lingering outrage from the theft of a goat on the grounds of West Point, but then again they also have to question the wisdom of any Army officer who selects a goat as a pet, so it's best to leave that story for another time.

Getting back to Bingham's insightful brilliance in December 1899 and the Army Mule, that story actually begins much earlier with Bingham's father, Judson Bingham, Class of 1854. Upon graduation, Judson Bingham worked his way up as a quartermaster and found himself in support of Major General Ulysses S. Grant, Class of 1843, and Major General William T. Sherman, Class of 1840, during the Civil War. In fact, it was the efforts of

Top, left: Judson Bingham, Class of 1854, father of Gonzalez "Gunny" Bingham (top, right). **Top, middle:** Painting of First Army Mule at 1899 Army-Navy Game, from Bingham Family collection.

quartermasters like Judson Bingham that largely allowed Grant to take the audacious gamble of slipping loose from his supply chain, floating down the Mississippi, and successfully attacking Vicksburg. It was one of the brilliant campaigns of the Civil War, but to be successful, Grant depended upon on the abilities of inspired quartermasters to feed and supply an Army that was living off local supplies once traditional supply lines had been cut. Later in the war, Sherman would adopt a similar strategy in his famous march through Georgia. Sherman also relied on Judson Bingham for managing the complex supply lines. And what did Judson Bingham rely upon?

Mules!

Mules could carry large loads and could live on most any fodder. As Sherman's quartermaster, Judson Bingham used them with great effect, and his ability to supply and sustain large armies operating far away from traditional supply lines was brilliant. Interestingly enough, one of Judson Bingham's greatest challenges was to keep his mules from being captured by the Confederate raiders led by one his classmates, Major General J. E. B. Stuart of the Confederate Cavalry.

Without any doubt, Judson Bingham owed much of his success to the effective use of mules. Grant certainly knew it, and he felt a great admiration for mules and would often intervene when he saw anyone mistreat a mule. Sherman did too. Long after the Civil War was over, when Sherman was serving as Commanding General of the U.S. Army, he got word that a favorite mule that had served with distinction was about to be sold off. Sherman forwarded the information to Robert Todd Lincoln (President Abraham Lincoln's son), the Secretary of War, who quickly responded with the following message: "The Quartermaster's department will be charged with ingratitude if that mule is sold or the maintenance of it is thrown on the charitable officers of the post. I advise he be kept in the Department, fed, and maintained until death."

Judson Bingham retired as a brigadier general and had a son, Gonzalez Bingham, who also joined the Army and went into the Quartermaster Corps. The young Bingham would have heard the

many stories about the effective use of mules in Civil War campaigns, and he also knew that his father loved West Point (Judson Bingham is buried in the West Point Cemetery). Like his father, Bingham also had a successful career in the Army. In 1899, he oversaw the



sprawling Schuylkill Arsenal, which functioned as the Quartermaster Center for the Army.

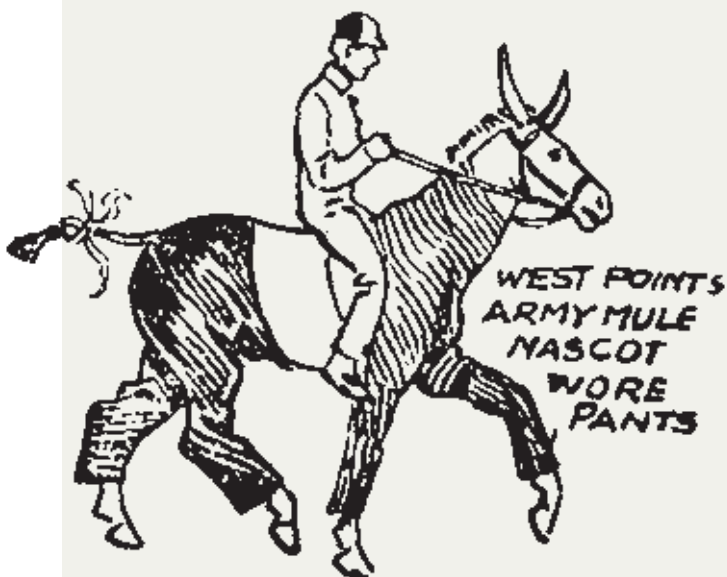
And so, on December 2, 1899, fortune smiled on West Point, because Gonzalez Bingham was the right guy at the right place, at the right time. He had heard his father talk about the great service of mules in the Civil War. He also knew that his dad loved West Point and had almost certainly heard the shameful story of the filched Navy Goat. Best of all, Bingham was willing and able to take initiative. He knew that Army had never had a mascot and was about to change all that.

Bingham's job as a quartermaster put him in the perfect place to commandeer one of the many mules that served the Schuylkill Arsenal. His selection was a big mule that pulled an ice wagon. Based on his color, the mule went by the name "Big White." The next inspiration of genius came from Bingham's wife, Nettie, whom he had met while serving in the West. Nettie was the daughter of an Army officer serving at the same post on the western frontier as then Lieutenant Bingham and she knew that if a thing is to be done in the Army, it best be done well.

It was Nettie who came up with the idea to fully outfit the mule in the proper attire. Under her guidance, a special "uniform" was fashioned in the cadet colors of black, gray, and gold. Nettie also organized a group to attach silk ribbons to Big White's tail, and when they had finished the mule was escorted into Philadelphia's Franklin Field. Cadets and other Army fans went wild!

The next day newspapers noted that the mule "carried the West Point colors with an air of mulish superiority to anything in his vicinity."

Big White not only warmed the crowd and inspired the cadets, but also helped Army overcome a Navy team that was heavily favored to win the game. Navy had a much better record, and few thought



Left and above: Artist renderings of Army's first mascot from the *Philadelphia Inquirer*, Dec 3, 1899.



Above: Ranger III and Stryker are two of the current Army Mule Mascots. **Below, left:** Blackjack is Army's fan mascot.



Army had much of a chance. But immediately after the arrival of Army's first Mule, the game was never in doubt, and Army went on to a convincing 17-5 win, having never trailed in the game.

When the game was over, Nettie Bingham had hoped to salvage the silk ribbons she had bought, along with the cadet uniform that she had pieced together, but the first Army mascot was such a sensation that fans literally tore the mule's uniform apart trying to grab a piece as a souvenir.

From those humble beginnings in 1899, the Army Mule has served as the official West Point mascot. He fulfilled his duty to the Army with honor by securing a win over Navy. Then, he gave up his uniform and returned to civilian service, hauling ice to help build and grow our country.

Mules would continue to serve as the Army mascot following the 1899 game, but they were just loaned or rented for game day: West Point would not have a fully enlisted Army Mule with dedicated duties until the 1930s.

Bingham continued to serve with distinction and had a son, Colonel Sidney Bingham, Class of 1912, who taught history and English at West Point. Sidney Bingham's son, Sidney Bingham Jr., also attended West Point and graduated in 1940. He was awarded the Distinguished Service Cross for his heroic action leading the 1st Battalion, 116th Infantry Regiment at Normandy on D-Day, June 6, 1944.

As learned from this origin story, Army's mascot is not some cartoonish figure nor a random animal typical of other college mascots. Nor was he shamefully purloined from someone's backyard. Instead, our mascot is a warrior that was selected because of great service to the nation, a battle-tested beast called upon to do hard things, in hard times, and that did so with distinction. Mules have earned the honor of serving as Army's mascot, and the Army Mule is a living example of Duty, Honor, Country. ★



YOU SERVED OUR NATION, *let us serve you*

USAA proudly offers free membership to anyone who has honorably served our country. We welcome all branches, all ranks and all generations. Join the millions of servicemembers and veterans like you already taking advantage of our financial products and award-winning customer service. For all the reasons you served, we serve you.

NOW'S THE TIME TO JOIN USAA

CALL 877-584-9724 OR VISIT [USAA.COM/WPAOG](https://usaa.com/WPAOG)



USAA is proud to be the
Preferred Provider
of Financial Services for the
West Point Association of Graduates

INSURANCE | BANKING | INVESTMENTS | ADVICE

No Department of Defense or government agency endorsement. USAA means United Services Automobile Association and its insurance, banking, investment, and other companies. Banks Member FDIC. Investments provided by USAA Investment Management Company and USAA Financial Advisors Inc., both registered broker dealers, and affiliates. Use of the term "member" or "membership" refers to membership in USAA Membership Services and does not convey any legal or ownership rights in USAA. Restrictions apply and are subject to change. To join USAA, separated military personnel must have received a discharge type of "Honorable." Eligible former dependents of USAA members may join USAA. West Point Association of Graduates receives financial support from USAA for this sponsorship. © 2020 USAA. 259534-0419-WPAOG



West Point Association of Graduates

698 Mills Road
West Point, NY 10996-1607

WestPointAOG.org
845.446.1500

Old Grad Plaid

Shop our entire collection of
Old Grad Plaid

Order yours online at:
oldschoolblazer.com/westpoint



1.800.426.4725
www.WPAOGGiftShop.com



The Gift Shop

West Point Association of Graduates

Update your contact information at WestPointAOG.org/profile to ensure you continue to receive *West Point* magazine and other WPAOG information.

Questions? 1.800.BE.A.GRAD or RedSash@wpaog.org

FIND WPAOG 24/7 ON:

