



DEPARTMENT & ALUMNI NEWSLETTER

December 2008



TABLE OF CONTENTS

From My Perspective.....	3
Geography Program Update	4
Environmental Science & Environmental Engineering Program Update.....	11
Geospatial Information Science Program Update.....	14
Army Orienteering.....	17
Current Faculty	18



This Newsletter was compiled and edited by MAJ Ian Irmischer.

FROM MY PERSPECTIVE

Colonel Eugene J. Palka Department Head

The continuing purpose of this newsletter is to keep our G&EnE families and faculty alums well-informed of the activities and developments within our department. From my perspective, academic year 2007-2008 was exciting, productive, and memorable. After a busy summer that included summer school (STAP), land navigation training for the “yearlings” at Camp Buckner, the summer leaders seminar (SLS), new instructor training (NIT), faculty research, and AIAD’s all over the world, we re-grouped during an abbreviated re-organization week and are now in the midst of a great fall semester. As many of you can recall, the fall foliage here in the Hudson Valley is magnificent during this time of the year. In fact, our military faculty had a special chance to enjoy it during our semi-annual APFT that was conducted in October.

This past June, the graduating class of 2008 included 82 cadets who majored within our department and 174 who completed our environmental engineering sequence. This fall, 112 members of the class of 2011 selected majors within our department (a slight increase above the 108 who selected G&EnE majors last year), and 162 chose the environmental engineering sequence.

In addition to our cadet graduation each June, we experience the departure of one cohort of rotating faculty members and the arrival of another group. Four of our officers returned to the field after completing highly successful tours in the department. LTC Steve Oluic is assigned to MNTSC-I and is currently serving in Iraq. Major Allison Day is serving with USACE and is stationed at Fort Bliss, Texas. Major Mindy Kimball is assigned to the 1st CAV Division at Fort Hood, Texas. And, Major Ben Wallen is attending ILE at Fort Leavenworth, Kansas. Each of these terrific officers made monumental contributions to G&EnE, USMA, and the West Point community. We will surely miss them and their families, but we are grateful for their dedicated service. On the other hand, we have backfilled these individuals with another bumper crop of NIT-qualified “blue-chippers,” including LTC Wiley Thompson (our newest academy professor), LTC Mike Peloquin, Major Chris Fuhrman, Major Jim Jordano, Captain Will Wright, and Captain Travis Rayfield. Additionally, with Dr. Jon Malinowski on sabbatical, we were able to hire Dr. Heidi Natel from the University of Binghamton for the current academic year. Consistent with our longstanding tradition, our newest members of the faculty bring

with them a wealth of operational experience from a wide range of branches and hail from some of the best graduate programs in the country.

In August, we hosted a retirement dinner and ceremony in honor of our Deputy Head, Colonel Joe Manous, his wife Stephanie, and their family. Both events were first class affairs and fitting tributes to a tremendous officer and dedicated professional who spent 7 of the past 8 years at USMA, culminating a stellar Army career of more than 28 years. We will surely miss Joe, and we will continue to be grateful for the many contributions that he and Stephanie made to our department, the academy, and the West Point Community.

The major strength of our department continues to be our superb faculty, who are impressive by any measure. While we continue to focus on teaching as our primary mission, we also continue to bring credit to our programs, department, and USMA via our professional publications, speaking engagements, and outreach to the Army and local communities. Over the past year, our faculty members have published books, instructor’s manuals, book chapters, government reports, articles in journals and magazines, and delivered a countless number of papers at professional conferences. Meanwhile, they continue to be enthusiastic and inspirational teachers, leaders and mentors. I could not be more proud of our continuing tradition in this respect.

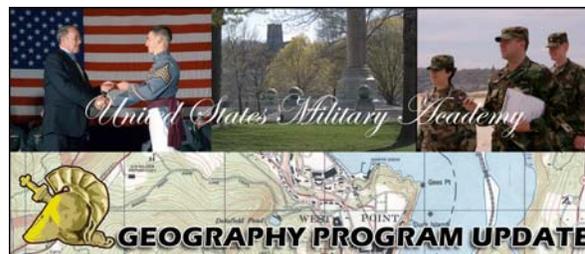
While virtually all of our rotating personnel arrive with operational experience, permanent faculty members also continue to be engaged with the GWOT. This past summer I had the opportunity to make my third trip to Afghanistan, while COL Laurie Hummel traveled to Iraq. Currently, LTC Steve Fleming is deployed for the second time to the NMAA in Kabul, Afghanistan, and this summer, LTC Mike Hendricks is projected to deploy to Iraq in support of the Topographic Engineering Center’s geospatial operations in country. Units and organizations clearly see the value of leveraging our expertise in support of current operations and I am extremely proud of our continuing contributions in this area.

Our faculty members also continue to support a wide range of cadet activities outside of the classroom. This past summer, we planned, coordinated, and executed 32 different AIADs for 134 cadets. Geographers traveled to Israel, Slovakia, Uzbekistan, Morocco, Vietnam, Turkey, China, Thailand, Tanzania, South Korea, and the Four-Corners region of the American Southwest. Environmental scientists and engineers participated in AIADs with the Corps of Engineers in Charleston, SC and Jacksonville, FL; USACHPPM at Aberdeen Proving Ground; FEMA in Boston, Seattle, and Austin, TX; and the Army Environmental Center

(AEC), and traveled abroad and/or outside CONUS to Guatemala, Italy, and Alaska. GIS cadets traveled to Panama and Alaska and held internships with Space Command in Colorado Springs; the Topographic Engineering Center at Fort Belvoir; the Defense Geospatial Intelligence School in Washington, D.C.; CRREL in Hanover, NH; ERDC in Vicksburg, MS, and several more. The opportunities for our cadets go way beyond anything that we could have imagined years ago, thanks in large part to the efforts of our faculty who are able to acquire outside funding. Additionally, we continue to benefit from the extensive network that we have developed over the years.

As many of you recall, we also continue to sponsor USMA's Orienteering Team. The tradition of excellence continues, as the team won the 2008 collegiate national championship, earning the distinction for the 6th consecutive year! Additionally, for the 4th year in a row, members of the team were able to travel to Europe to participate in the world championships.

In summary, life is good in the department and the view from the 6th floor windows of Washington Hall continues to be awe-inspiring. I consider myself to be extremely fortunate to be able to continue to serve our department, USMA, and those of you who maintain ties with us. I truly appreciate your continued support of our programs and initiatives. Please make it a point to stop by for a visit if you have the opportunity to return to West Point. I would welcome the chance to show you around our department. Best wishes to you and your families throughout 2009! **GO ARMY!!**



Colonel Laurie Hummel Program Director

Greetings to former staff and faculty, and friends of the department! This year has been yet another exciting and busy year. The talented and dedicated group of military and civilian faculty continue to contribute to the program with their dedication to academic excellence and cadet development in all the domains of endeavor. The absolute highlight of the year was the recent selection of our Lambda Mu Chapter of the International Honor Society in Geography, Gamma Theta Upsilon, as 2008 National Chapter of the Year. This is an amazing validation of the vibrancy of our program and our partner the GIS program, especially since Lambda Mu was established only five years ago. Complete credit for the activity and productivity of our GTU chapter goes to Dr. Rick Wolfel and Majors Benef Verell and Jon Bushman.

Additional highlights from this past year include twelve Academic Individual Advanced Development (AIAD) opportunities where cadets travelled domestically and abroad to hone their skills in languages, cross-cultural competency, and regional expertise. A run down of Geo's AIADs is located elsewhere within this newsletter.

Another achievement was the graduation of the program's second honors class. Nine cadets completed the two semester honors sequence, which began with a course in Research Design and culminated 8 May 2008 with the completion of honors theses and oral presentations delivered during Projects Day. These cadets examined a wide variety of geographic subjects, and the nine unique research papers ranged widely in topic.

I know you are all waiting for news of that EV203 classic, the Army-Navy Dirt Skit! This year's Dirt Skit, "Coriolis Jones and the Secret of the Dirt Man Skull", portrayed the saga of LTC (Dr.) Jones and his (unbeknownst to him) son, Coriolis, who, with the not-so-helpful assistance of a band of bumbling cadets, thwart the plans of the fiendish midshipman to cast a spell on the Army team. This theatrical tour-de-force featured the Geo Cave Man ("so easy a yuck could do

it”), the "Mess Hall Players", and a high-speed chase scene that ranged from Lake Frederick to the Jersey Turnpike. Each performance ended with the mind-blowing sounds of the Dirt Band, as the yearlings were worked into a spirited frenzy. The skit truly represented the collective efforts of the entire department, with Major Chris "Cecil B. DeMille" Fuhriman leading the charge as director/producer.

Comings and Goings

This past summer we were fortunate in losing only one faculty member to PCS. LTC Steven Oluic, aka “The Mad Serb” to his many admiring students, left us in June and is now partway through his tour in Iraq, where he works on manning, equipping, and training the Iraqi Security Forces. Steve deals with the Directorate of Border Enforcement, the Directorate of Ports of Entry, and the National Police. He works boundary and border force issues routinely: no doubt a natural fit for this political geographer. Steve’s wife Gisela and three children remain here at West Point; Gisela is an active part of the Geography family. We were able to keep MAJ James Chastain with us for an extra semester due to scheduling issues with his education plan for the Strategic

Intelligence Officer functional area. We are very fortunate it’s worked out this way as James is currently course director for Geography of Global Cultures, plus associate Sprint Football coach. James and Ami will depart for Washington in January 2009.

New to the Program this past year is one Title 10 civilian faculty member and two outstanding Army officers. Ms. Heidi Natel is with us just for this academic year; she was hired to help fill the teaching gap felt by Dr. Jon Malinowski’s sabbatical absence. Heidi teaches EV203, and is faculty advisor for one of our 2009 honors student projects. Holding a masters in Earth Science from SUNY Oneonta, she is very close to finishing her PhD in Environmental Geochemistry at the University of Binghamton. LTC Wiley Thompson, his wife Tina, and their children Noah and Isabelle join us from the University of Oregon, where Wiley completed a PhD, focusing his research in geographic perspectives on military support to humanitarian support operations. Wiley is the Geography Program’s new Academy Professor, and as such will take over directorship of EV203 in the spring. MAJ Chris Fuhriman, his wife Sarah, and their children Abigail, Samuel, and Paul also joined us from the West Coast – but this family came from way out west, specifically



Dean of the Academic Board BG Pat Finnegan presenting the 2008 National Chapter of the Year Award to Lambda Mu, USMA's local chapter of Gamma Theta Upsilon (GTU), the International Geographic Honor Society. Pictured with the Dean (from left to right) are Cadets Thomas Bazemore (GIS), Caleb McCollum (Geo), Heidi Koller (Geo), Katie Fichtner (Geo), Neal Trump (Geo and GIS), and Trey Wheeler (Geo). GTU Faculty Advisors are (pictured left to right) MAJ Jon Bushman, Dr. Rick Wolfel, and MAJ Benef Verell.

the University of Hawaii. While there, Chris' research focused on competing interpretations of the Korean Demilitarized Zone as expressed through media. Chris currently teaches EV203, and will take on the Geography of Asia and Geography of Latin America courses soon.

Academic Year Highlights

The Geography Program experienced another busy and productive year during academic year 2008. The program offered 20 courses taught by 17 program faculty, supporting two academic majors as well as the entire Corps of Cadets. Meteorology was offered for the first time as EV387. This year we taught approximately 1,750 cadets, enrolled in all geography classes. We taught 1,182 cadets in Physical Geography (EV203) our core course, and 149 in Geography of Global Cultures (EV365) which continues to have the highest enrollment among our elective courses as a service course to several majors.

The past academic year included a number of notable personal achievements by cadets and faculty. We are extremely proud that Dr. Rick Wolfel was selected for promotion to Associate Professor. Also, Majors Benef Verell, Jason Ridgeway, and Jon Bushman were selected for Assistant Professor; this is a great honor and is indicative of their scholarship and efforts in and out of the classroom.

This fall, the program once again experienced a solid recruitment result, welcoming 55 new majors from the Class of 2011, including 34 Human Geographers and 21 Environmental Geographers. Our student base continues to be robust; we added 55 members of the Class of 2011 to the program as Human and Environmental Geography majors. West Point currently has 171 Geography majors; of that we are suitably proud. The geography faculty believe that cadets'

enhanced understanding of the relevance of the discipline, along with our solid teaching and cadet-centric atmosphere is responsible for the continued strength of the program. Our last academic year was full of cadet centered activities: an evening welcome back for returning majors; an evening welcome session for new majors in the Class of 2010; a GTU lunchtime colloquium; the GTU Luncheon and Induction Ceremony; and an end-of-year Geography Bowling Extravaganza. Additionally, our cadets were active in academic extracurricular activities: a strong second place regional finish for the West Point Geography Bowl team; presentation of two cadet posters at the Penn State Geography "No Boundaries" Graduate Student Conference; cadet representation on the regional Middle-States Geography Bowl team, which won the national championship. Additionally, the Geography Club went on several field trips of academic interest, including a scavenger hunt in Union Square. Actually many Geography majors and non-majors alike participate in the activities of the Geography Club, headed by Dr Amy Richmond Krakowka and Majors Jason Ridgeway and James Chastain.

Geography faculty were also very active in academic research and outreach activities. As the program continued their research and educational partnership with the Defense Intelligence Agency, six geography faculty and three cadets traveled to DIA to give academic presentations in a lecture series. The program also sponsored a Working Seminar in September for the JWS-2, Operational Environment Analysis Division, held at West Point, in which faculty made several professional development presentations. Dr. Rick Wolfel and I also participated in planning panels at the second TRADOC Culture Summit held at Fort Huachuca. This summit represents the Army's progressive steps toward codifying the educational and training requirements necessary for increasing the cultural awareness and regional expertise of the force for the War on Terror and beyond. Several faculty members are conducting robust research agendas applicable to the military's efforts abroad. LTC Steve Oluic was notable in this effort. He received a grant and had several outreach programs regarding his research in the Sandzak region of Serbia, and also had a book published on the cultural landscapes of Bosnia and Serbia. LTC Oluic was an invited lecturer at Kent State University's Lemnitzer Center for NATO Studies, the Department of State's Bureau of Intelligence & Research, and the Njegos Endowment for Serbian Language & Culture at Columbia University. MAJ James Chastain and MAJ(P) Brian Dunmire took an active role in assisting AFRICOM to define initial goals for engagement and outreach; both have served as panelists at AFRICOM knowledge development meetings,



EV203 Cadets display their geographical knowledge, identifying West Point's location on a Dirt globe.

and MAJ Chastain also attended the African Security Issues and Strategies Conference at National Defense University's Center for African Strategic Studies. COL Palka and Dr. Malinowski published two books: one a historical picture book of West Point, the other a textbook on North American geography. COL Palka also co-authored a global regional geography text and a book chapter concerning climate change and military operations. Lt Col Rios and I co-authored a book chapter on Human and Environmental Security in the Sahel in an interdisciplinary effort with faculty from the Department of Social Sciences. Program faculty contributed to many professional journals, magazines, and conferences during the academic year. Eight presented research and posters, and participated in panel sessions at the Association of American Geographers (AAG) Mid-States meeting in November 2007; eleven presented research, organized and participated in panel sessions, and participated in AAG specialty group and national governance at the annual meeting in April 2008 at Boston. Faculty also presented independent research at the Geological Society of America South-Central Session, the Applied Geography Conference, and the New England-St. Lawrence Valley Geographical Society Annual Meeting. Eleven geography faculty published twenty-two articles in eleven different journals and magazines, and ten book reviews in a number of journals and newsletters.

The program faculty also inaugurated a periodic Geography Colloquium, with presentations in the spring semester ranging from institutional concerns and teaching methodologies to the path to successful publication. The colloquia allow the program to come together informally and celebrate the intellectual diversity of geography, and will be continued in the future.

The program held its fifth graduation awards ceremony on 29 May for the 51 geography majors in the class of 2008. At that ceremony each graduate received a certificate, and the top performing graduate in each geography elective was awarded an appropriate book, inscribed by the course director. The ceremony was preceded by a reception and the event was greatly appreciated by our cadets and their families. We had a great turnout with many family members and cadets in attendance. During the ceremony, we reviewed the year's academic highlights and recognized our top performing cadets. Lauren Teal was the outstanding program graduate overall; Cole Livierators was the top human geographer and an East-West Scholar; Top environmental geographer Cody John; Nicholas Cosmos won the Gordon E. Hummel Memorial Award for Excellence in Geographic Research; and Benjamin Sylvester won the Harold A. "Duke" Winters Memorial Award for Excellence in Military Geography.

Geography Program AIADs

The Academic Individual Advanced Development (AIAD) program at West Point is a great opportunity take geography out of the classroom and into the human and physical environment. Cadets are given the chance to learn about their world and themselves. This year our cadets participated in AIADs in Morocco, Alaska, Tanzania, Israel, Slovakia / Ukraine, Turkey, Uzbekistan, Thailand, Vietnam, China, Korea, and the Four Corners Region of the US. For the sake of brevity we have included summaries of only those trips run for the first time 2008. For the unedited version, please check out our Geography Program website! Excellent trip summaries are available there written by MAJ Will Clark (Morocco); MAJ James Chastain (Israel); MAJ Jason Ridgeway (Vietnam); LTC Joe Henderson (Korea) and MAJ Matt CuvIELLO (4 Corners).

Alaska

MAJ Will Clark

For the first time since the early 1990's cadets participated in the Icelandic and Alaskan Glaciers research expedition. Two cadets majoring in Geography and GIS participated. The objective of the AIAD was to expose cadets to current, relevant, scientific research being conducted on the Bering Glacier in Alaska and to allow them to develop their own research agenda stemming from this experience.

The Bering Glacier research group consisted of professors, graduate students, and private sector pro-



Cadets Jon Wood and Shawn Sowiak operate the ground penetrating radar at the forefront of the Bering Glacier, Alaska, June 2008.

professionals who have a long history of researching this glacier and others. Cadets spent nearly three weeks in the company of these researchers and learned much more than they could have in any classroom. Better yet, the cadets were able to apply what they had learned in the classroom to the field.

The cadets lived and worked in austere conditions within the immediate vicinity of the largest glacier in North America. The Bering Glacier presents a unique opportunity for researchers to gain valuable insights on glacier behavior, global warming, and past climates. Researchers focused their efforts on collecting field measurements using the department's ground penetrating radar. With the help of MAJ Clark, other expedition members, and selected department faculty members, Shawn and Jon are working toward an academic conference presentation of their research findings.

Tanzania **MAJ James Chastain**

Cadets majoring in Human and Environmental Geography participated in a three week AIAD studying the cultural and physical landscapes of Tanzania. The cadets and MAJ Chastain traveled over 2,000 miles through East Africa studying topics ranging from Swahili culture to the tectonic processes in the East African Rift Valley. Their journey started and ended in



Maasi warriors and Cadet Bill Leahy (Army Hockey player, and Environmental Geography Major) in Tanzania.

Dar es Salaam, the former capital of Tanzania where they studied Dar's municipal governance structures and urban issues. The cadets then visited Zanzibar's spice plantations, former slave markets and coastal reefs.

Cadet Matthew Hickey was most interested in the history and geography of the East African slave and

spice trades. "I did not know the full extent of Arab-Persian influences on the slave trade. Zanzibar served as a focal point for the trade of goods and services between Asia and Africa."

Next, the cadets traveled from Zanzibar to Western Tanzania. The cadets actually got to live in a Maasi village, participate in village life, and even play soccer and learn hunting skills from the villagers. The cadets also studied the flora, fauna and natural landscapes in Ngorongoro Crater and the Serengeti plain. Cadet Bill Leahy's favorite experience was visiting an AIDS orphanage in a small village near Lake Victoria, the source of the Nile river. Here the cadets learned about the difficulty of growing up in a Sub-Saharan African orphanage.

Slovakia and Ukraine **Dr. Peter Siska**

The Viennese composer Johann Strauss became famous when he wrote his waltz, "On the Beautiful Blue Danube" and that is precisely where six cadets from G&EnE began their journey into the world of Central and Eastern Europe. The capital city of Slovakia, welcomed them to its bustling streets as they crossed the Danube. In Bratislava cadets ate their first supper in the shade of Saint Martin's Cathedral before continuing their journey eastward.

Visiting historical places and museums was part of the educational side of the trip, but to meet one of the new candidates for the Slovak Presidency, Frantisek Miklosko and the famous dissident Jan Cardinal Korec was above expectation. After this meeting, the cadets travelled to the rural Nitra Valley where mayors of the two villages of Hrusovany and Preseľany competed with each other over who was going to be the best host. Local soccer players even invited the cadets to play a game of soccer on their new field. The game ended diplomatically in a tie.

In the foothills of the Tribec Mountains, days and nights were packed with exciting events such as target shooting, dancing, folk music, bowling, swimming, and even an American football game with a youth group that promotes American sports. In the Ukrainian region of Ruthenia, cadets found one of the most ethnically diverse and poorest places in Europe. Here cadets visited the Uzhhorod Church where the late Bishop Romza is laid to rest. He was a great Byzantine Church leader whom Stalin ordered to be persecuted and finally poisoned after previous assassination efforts had failed.

In the Ukrainian capital of Kiev cadets visited the beaches along the Dniester River and cooled off in its reddish-blue waters. While in Odessa, they walked along the streets passing by the houses of famous writ-



Cadets Mark, Michael and Maca deep in the castle wall in the Tribec Mountains.

ers such as Pushkin and Gogol. Finally, the beaches of the Black Sea were a great place to take a rest at the end of our trip. The cadets were left with unforgettable memories of Eastern Europe and the warm and genuine Slavic hospitality that they experienced there. ДОСВІДАННЯ! and DOVIDENIA!

Turkey
MAJ (P) Brian Dunmire

This year's Turkey AIAD was divided into three distinctive parts. The first was an examination of Istanbul, the crossroads of Europe and Asia. The cadets arrived in Istanbul and explored Taksim Square, Suleymaniye, and the Spice Market. Next they traveled to Gallipoli, and spent the day examining the battlefield, including Anzac Cove, Sari Bair, and the crescendo of the campaign, Ataturk's defense of Chunuk Bair. After Gallipoli, they continued to explore Istanbul, including visiting Emperor Justinian's Hagia Sophia and Sultan Ahmet's Blue Mosque, the Ottoman Sultan's palace Topkapi Seraglio, the Grand Bazaar. Later they took a boat trip on the Bosphorus to see both the Asiatic and European sides of Istanbul.

The second phase of the trip was the beginning of the cadets' travels through the historically Turkish portion of modern Turkey. The first stop was Bursa, the first capital of the Ottoman Empire. There the cadets explored the Green Ottoman Complex, the Great Mosque, and the ancient Covered Bazaar. Continuing on, they visited Gordion and the tombs of King Midas and Eskisehir. In Cappadocia the cadets saw rock chapels, monastic complexes, and the Underground City of Ozkonak.

The last phase of the trip began with visiting the Mediterranean coastline, a region influenced by the Greco-Roman and Christian cultural traditions. Beginning in Antalya, they travelled to Pamukkale to see the Hierapolis, an ancient Pergamene and Roman thermal resort perched atop amazing white lime cascades.

Next they visited both the city of Ephesus and the Chapel of the Virgin Mary, where she lived to the end of her days. After visiting Izmir, they continued onto the Acropolis of Pergamum, the Asclepion, and then to the ancient city of Troy. In 17 days, the cadets travelled over 1,800 miles and were rewarded with a better appreciation for the cultural and natural landscapes of Turkey.

Trip to the crossroads of the Silk Road
Dr. Richard Wolfel

Cadets from G&EnE traveled to Uzbekistan as part of a cultural immersion experience to the former Soviet republic in Central Asia. The cadets, accompanied by Dr. Richard Wolfel of the Center for Languages, Cultures and Regional Studies, spent 17 days in the country studying the unique physical and human landscapes of the region. Highlights of the trip included two visits with US Ambassador to Uzbekistan Richard Norland and the staff of the Defense Attaché office in the capital Tashkent. Ambassador Norland provided the cadets with some background of the region and on how an American embassy interacts with a foreign government. The cadets also traveled to the Aral Sea to see first-hand the disaster that has resulted from intensive



Cadets on one of the former ships of the Aral Sea fishing fleet.

agriculture in the region as well as the dramatic economic decline that has accompanied the collapse of the fishing industry.

The cadets visited the Silk Road cities of Khiva, Bukhara and Samarkand. In these cities they toured several mosques, palaces, and madrassahs and met with several local citizens who discussed the importance of these sites to the cultural identity of the local population. The trip was rounded out with a tour of the Fergana Valley, the agricultural and cultural

heartland of Uzbekistan. Here cadets toured a bazaar, where they talked with local citizens and had the opportunity to spend time at a local tea house, the primary gathering place of Uzbeks.

The cadets described this trip as a once in a lifetime opportunity to see a country that is emerging from the Soviet Union and becoming an important regional power in this volatile region.

Thailand

Ms. Sandi Dunlap

Five cadets accompanied by Ms. Sandra Dunlap spent three weeks experiencing the historical and cultural geography of Thailand. Starting off in Bangkok they spent two days sightseeing, visiting two major religious shrines, the Temple of the Emerald Buddha and Temple of the Reclining Buddha. They also were able to tour the National Palace and its associated museum. The cadets vowed to “eat local” for the duration of the trip and eat local they did, trying a wide variety of local foods at all meals.

A very interesting stop was Kanchanaburi, site of the infamous bridge over the River Kwai and the Death Railway. Prior to arriving, cadets watched the movie and then compared fact with fiction once in Thailand. Visits related to the bridge and the railway included the Thai-Burma Railway museum, which has research and archival facilities and two war cemeteries where nearly 9,000 remains of British, Australian, New Zealand, and Dutch prisoners of war are interred.

The bulk of the trip was spent in the northern city of Chiang Mai where group members immersed themselves in Thai culture. This was accomplished through a variety of activities including Thai language classes, visits to handicraft factories and indigenous tribal villages, adventures in shopping and bargaining at the Night and Walking Street Markets and a class in Thai cooking. On the last evening in Thailand, as part of their research, the cadets reverted to western style food and compared McDonald’s Thai style to a standard U.S. McDonald’s.

China

MAJ Matthew CuvIELLO

G&EnE cadets who traveled to China with MAJ Matt CuvIELLO have had a hard time deciding on the best moment of the AIAD. They saw China in a whirlwind 15 day adventure between 29 July and 13 August. The success of the trip was the diversity of events, places and people and the collective experiences of traveling to six cities and navigating two rivers.

The group traveled to Beijing, Xian, Guilin, Yangshou, Chongqing, and Shanghai, visiting histori-



Nice shorts! Cadets and OIC climb the Great Wall of China.

cal and cultural sites. They were in Beijing just days before the Olympic Games and were able to see many of the sites, people and venues in and around the city. Walking the Great Wall was the highlight of Beijing. In Xian, the cadets saw among other things the Terracotta Warriors and were amazed by the craftsmanship and the magnitude of the project. Guilin and Yangshou are found in the land of tower karst topography. Touted as one of the most beautiful places in the world, the area did not disappoint. The group enjoyed kayaking in and amongst the formations on the Li River. Chongqing was the start point for the journey down the Yangtze River to the Three Gorges Dam project. The last stop was Shanghai, a very modern city. The group got to visit with family friends of one of the cadets, visit museums and ride bikes through different ethnic neighborhoods.

One highlight on which all can agree was the amazing food in every region of China. The group feasted on a variety of different ethnic Chinese foods in a wide range of dining establishments. The favorite meals were definitely the hot pot meal, pulled noodles, Peking duck, and fried snake. Those in the group not proficient in the art of eating with chopsticks mastered the technique very quickly.

In Closing

The geography program at West Point is ever changing, exciting, and dynamic. Everybody who is a part of this program, both past and present, both cadets and faculty, has influenced it in some way. We are lucky to have a continued influx of extraordinarily talented and professional people. Through continued creativity and dedication the program thrives, and contributes greatly to the discipline of geography, to USMA and the Army.



**Dr. Marie Johnson
Program Director**

Greetings from West Point! Remember your days back here on the fifth and sixth floor of Washington Hall? We hope you do and that you remember them fondly. Those of us who are still here teaching cadets, designing ever cooler AIADs, cheering on our Army sports teams, finding laughter in basketball and ultimate Frisbee games, Dirt Skits and conversations with our colleagues simultaneously feel that nothing ever changes and everything changes. It's one of the enduring truths of this place that both thoughts are equally applicable.

One aspect of GEnE that does not change is the yearly shuffle of people. Every year we regretfully say goodbye to our third year instructors who have become good friends and valued colleagues. We feel we will never be able to replace them and, while absolutely true, these departures are balanced by an influx of enthusiastic new instructors eager to embrace the challenges of the Academy. This year we unhappily said goodbye to two stalwarts of the environmental program: MAJ Mindy Kimball and MAJ Ben Wallen. Mindy, who primarily taught our physical geology and environmental science courses, has changed Army career paths from AG to Space Operations. She departed from West Point to attend 10 weeks of Space Operations training in Colorado Springs, CO and has now been assigned to Fort Hood. She will deploy to Iraq in January for 12 months. We miss her updates on the Theatre Guild activities, generous sharing of home baked cookies, and reminders to TURN OFF THE LIGHTS when you leave your classroom/office/bathroom. Ben, who course directed two of our three sequence courses, is currently attending ILE in residence at Fort Leavenworth, KS. When he graduates in June, he will probably be posted to Fort Hood in Texas and deploy shortly after that. We miss his updates on the women's basketball team, drive to leave everything he touches better than when he found it, and effervescent enthusiasm. Dirtman and Dirtwoman have been sighted a bit less frequently since these two have left; no one knows if this observation is a coincidence or cause and effect.

To balance the departure of MAJ Wallen and MAJ Kimball, we are most happy to welcome our three new instructors: LTC Mike Peloquin, MAJ(P) Jim Jordano, and CPT(P) Travis Rayfield. All three are Corps of Engineer officers. Mike Peloquin joins us from Virginia Tech where he has been working on his PhD in environmental engineering. Mike and his family have chosen to live off-post and have become homeowners in Washingtonville. A trip to Mike's office is always fun as he keeps a turtle tank in his office filled with unique turtles. His suitemates have gotten used to the sound of splashing water as a turtle plops off a rock and back underwater. Jim Jordano is not really a "new" instructor as he has joined us for his second teaching tour. JJJ or Triple Threat as he is affectionately known has come straight from 15 months as an XO for 2 BCT Troops Battalion, 3rd ID in Kaslo, Iraq. Jim says his 15 months tour of duty has caused him to recalibrate what he sees as stressful. Triple Threat has been an immediate success in the classroom and his enthusiasm has already resulted in two of his EV300 students changing their majors to Environmental Science. Travis Rayfield is joining us directly from the University of Florida where he earned a Master's degree in environmental engineering. Travis al-



The "Mad Scientist" MAJ McAllister helping cadets during a lab experiment.

ready has his PE license which is amazing to me as I can remember (just yesterday!) teaching him field geology when he was a cadet taking the Field Course in the Rocky Mountains of Colorado. We are thrilled with all three of these officers and are very glad they have chosen to use their talents to teach and mentor cadets.

This past year also saw the retirement of the department's most senior environmental engineer, COL Joe Manous. Joe served as the Environmental Program director for two years but spent the last two years serv-

ing as the Deputy Department Head. Joe retired from active duty in August and has taken a job working for the US Army Corps of Engineers in the Institute for Water Resources in Alexandria, VA. He is enjoying being a practicing engineer but we miss him greatly here. No one else has Joe's commanding speaking voice, engagement with all sorts of organizations beyond the Academy walls, and steady, calm demeanor no matter what storms are swirling around us. COL Manous' well earned retirement has left a void in our department leadership but in true Army fashion we have identified new folks to take up the reigns. COL Jason Lynch, who has served as our EV Program Director for the past two years, has been promoted to Deputy Department Head and, at long last, has the beautiful office on the sixth floor with the enviable view of the parade field. Jason continues to teach in the environmental program and to oversee me as I attempt to fill his shoes; that's right, I've now become the EV Program Director. See? Nothing changes but everything changes.

Next I'd like to highlight some cadet award winners. During the 2008 USMA spring awards convocation Cadet Russell Raines, an environmental engineering major, received the Order of the Founders and Patriots of America Award for excellence in environmental engineering studies while Cadet Zachary Miller received the National Organization of the Ladies Aux-

iliary to the Veterans of Foreign Wars of the United States Award for excellence in the environmental engineering sequence. The Class of 2008 included two honors graduates: Katelin Grant (EV science) and Russell Raines (EV engineering). I am pleased to report that five of the seven 2008 environmental engineers successfully passed their Fundamentals of Engineering Exam and are now recognized engineers in training. In addition, one of our newest environmental engineering majors (CDT Evan Nelson, 2011) was honored by Field and Stream magazine as a Hero of Conservation for his efforts to clean up the Delaware River. Evan was invited to attend a gala celebration recognizing his achievement held at the American Museum of Natural History in NYC. COL Jason Lynch was Evan's honored guest at the event. We continued our "tradition" of one year of hosting a Cadet Graduation Awards Ceremony for the Class of 2008 Graduation Week festivities. The event was attended by virtually all of our graduating majors and their families and guests who seemed to truly enjoy getting the chance to meet the faculty and see our facilities. It was a lot of fun for us too; it's just a joy to be around people who are so happy and proud! The Class of 2008 graduated 12 environmental science and seven environmental engineering majors. We have just finished recruiting the Class of 2011 and I am very happy to say that this was one of our best recruiting years ever: we signed up 20



The legendary Dirtman and Dirtwoman are a constant inspiration to the faculty and cadets.



Environmental Engineer Will Brant, 2010 with Mayan villagers in Western Guatemala.

EV engineers and 15 EV scientists. We hope this trend continues as we improve getting the word out to the Corps about our disciplines and the value of our majors.

One other news item about cadet activities: for several years, our program has sponsored a cadet club loosely affiliated with EWRI (Environmental and Water Resources Institute). This year we have rethought our focus and are partnering with a new national organization. We are in the process of becoming fully registered with an organization called Engineers and Scientists for a Sustainable World. We hope the new name change will be more enticing to cadets and give them greater opportunities to connect with students at other colleges and the wider environmental field.

You may have noticed that the Academy is truly embracing the idea of increasing cadets' exposure to culture during their time with us. Among other changes, this initiative has resulted in a much larger number of cadets spending a semester abroad at either foreign military or civilian schools. As an example, the environmental program had three cadets abroad last spring. Colin Jones, an environmental engineering major, spent the semester in Mexico while David Reyes and Jen Wardynski, both environmental scientists, spent the spring semester in Brazil and Jordan respectively. These excursions are wonderful experiences for the cadets and result in many "once-in-a-lifetime" opportunities for them but they do take a bit of work on the part of DACs to ensure that the cadet can still meet all the graduation requirements in 47 months.

In a similar vein, the EV program offered two new AIADs to cadets this past summer. MAJ Adam Czekanski developed a trip to Guatemala that involved doing field work for the Water for People non-profit organization. Adam had learned of this organization in

grad school and realized it was a perfect fit for our program. On his own initiative, he established contact with Water for People and eventually developed a full blown AIAD for our cadets. In the end, he took six cadets with a variety of majors to the western highlands of Guatemala. They spent the first half of the trip in small teams, visiting remote villages and collecting data on the water distribution systems that Water for People had built a few years ago. About half the cadets spoke good Spanish which facilitated data collection. The cadets collated all the collected field data and wrote a draft of their final report while still in-country. The group then got some time to play tourist and explore the country. Highlights included hiking on an active lava field and some serious cave exploring. When they returned, they wrote their final report (35 pages!) which was well received by Water for People. Adam was especially pleased because this organization had not previously partnered with "college kids" and he wanted to make sure that we rewarded their faith in us. LTC Mark Smith led an AIAD to southern Italy. He chose four cadets to accompany him. The AIAD focused primarily on introducing the cadets to the culture of southern Italy, and the environmental science and environmental engineering issues in Naples and Rome. In Naples, the cadets met with scientists from the Vesuvius Observatory, learned about the monitoring of the gases and movements that might indicate Mount Vesuvius could erupt, hiked to the top of Mount Vesuvius, and toured Pompeii. Cadets also met with the Civil Disaster Protection Office to learn what is planned to ensure the citizens are evacuated in advance of an eruption. Cadets met with Naples, Capri, and U.S. Navy officials and learned about the short- and long-term garbage problem in Naples, the Region of Campania, and how the island of Capri has been able to develop some innovative solutions. Cadets received a tour of the Department of Environmental Sciences, University of Naples, in Caserta. The group also traveled to Rome and learned from the Mayor's office the measures taken to reduce the impacts of air pollution, vibration, and graffiti on their monuments and buildings. The AIAD included trips to WWII battle sites: Salerno beaches, San Pietro, Rapido River, Cassino, and the U.S. cemetery near Anzio. Mark reports that throughout the trip there was plenty of pizza, pasta, and fun. In addition, we also sent cadets to AIADs sponsored by the US Army Corps of Engineers, FEMA, Aberdeen Proving Grounds, and the Army Environmental Center. All of these experiences gave cadets a sense of what it means to be a professional in the environmental field out beyond the Academy walls.

Our group continues to remain active on the research front as well. Dr. Mike Butkus and I spent

many days this summer working in the independent study lab on our lead migration project. We hope to get a paper submitted on this topic sometime this coming year. LTC Mark Smith is busy generating interest in establishing a USMA Center for Energy and Environmental Security that focuses on integrating renewable energy, waste minimization and recycling. He's briefed many of the Academy's key leaders and is building support as he goes. MAJ Adam Czekanski and MAJ Dave Roux continue their work on the use of clicker feedback systems for anonymous polling of cadets during class. They plan to present their results at the national ASEE meeting. CPT Travis Rayfield traveled to New Orleans in November to give a presentation on some of his graduate school work at the American Water Resources Association. Finally, LTC Mark Smith and I wrote a paper, *Designing appropriate scaffolding for student science projects*, describing the EV301/EV300 term project which should be published very shortly in the Journal of College Science Teaching.

The final item I would like to mention is that the new cadet library is officially open. When you do return to post, after first stopping by to visit us, you should absolutely go check out the new library. It is beautifully done and makes me proud to teach here. I cannot imagine a better place to study (complete with coffee bar); you will be amazed when you see it (and a little bit jealous that you didn't have such a facility back in your days at the Academy). Thanks for staying in touch with us and for reading this far. West Point continues to be a special place; once again, back to our "some things never change" theme.



EV301 cadets showing off their new hardhats on a visit to a waste-to-energy facility.



Dr. John Brockhaus Program Director

Faculty

The past academic year was both a busy and productive one for the GIS program. Faculty were fully engaged in the education and mentoring of cadets as well as with outreach to the Army. In addition to our classroom activities each of the GIS faculty served as Officer Representatives or OICs for various cadet athletic teams and clubs to include: the women's softball team, the orienteering club, the women's tennis team, and the women's volleyball team. We were fortunate to have an addition to the GIS faculty this year. CPT Will Wright joined the GIS faculty this past summer. Will is an Armor officer, but is now part of the Space Operations Functional Area, and received his M.S. in Civil Engineering-Geosensing from the University of Florida. This sustains the number of GIS faculty at six: one civilian professor, two academy professors and three rotating instructors.

Mr. Joseph Harrison of the US Army Topographic Engineering Center (TEC), Ft. Belvoir, Virginia had been on loan to the GIS program for the past two years. This past spring Mr. Harrison returned to the TEC but continues to support the GIS program remotely. The agreement with the TEC is that he will devote approximately 60 percent of his time supporting geospatial needs and initiatives at the USMA. Mr. Harrison will also be spending several two week assignments on site at the USMA to support the GIS program. Additionally, Mr. Mike Tischler of the TEC will be joining the GIS faculty in the spring for one semester. His focus while at the USMA will be teaching two sections of EV398-Geographic Information Systems and to serve as a conduit for information exchange to academy faculty and cadets.

Our outreach activities to the Army continue to increase. The Yuma Proving Grounds continues to support the research efforts of LTC Fleming regarding the development of GIS capabilities for installations in Panama, Honduras and another in Alaska. The work in Central America this past year involved two cadets majoring in GIS as well as MAJ Ian Irmischer. MAJ

Didier was the officer on site in Alaska also overseeing the work of three cadets, one majoring in GIS the other two in Environmental Science. Additionally, LTC Fleming has developed a working relationship with the Program Executive Office for Simulation Training & Instrumentation (PEO-STRI) of the Research Development & Engineering Command in Orlando, Florida. This relationship has already provided dividends to the GIS program in the form of a high resolution geo-spatial modeling and simulation data base of the Academy. PEO-STRI supported two cadet AIADs this summer to continue the development of the West Point data base. LTC Hendricks is collaborating with the Army Topographic Engineering Center on several research projects: (1) digital elevation model resolution requirements for command and control systems; (2) development of an Urban Tactical Planner database for West Point; (3) utilization of immersive media technologies for the development of geospatial data bases. As part of these initiatives three cadets majoring in GIS and four GIS faculty members spent three weeks on site at the TEC supporting ongoing research projects at the TEC. Dr. Brockhaus continues to conduct geo-spatial research for the National Geospatial Intelligence Agency.

GIS faculty continued to be active professionally as well. Presentations were made at the following conferences this past year: the American Society for Photogrammetry and Remote Sensing Annual Conference, the Association of American Geographers Conference, the Trimble Dimensions User's Conference, the BAE Systems SOCET SET User's Conference, the International Lidar Mapping Forum, the Geographic Information Sciences Conference, the National Geospatial Intelligence Agency NARP Symposium, the Army Geospatial and Imagery Conference, the National Space Symposium, and the ESRI International User's Conference. While at the ESRI International User's Conference the USMA GIS contingent set up a West Point booth as part of the Academic GIS Fair.



LTC Fleming and past faculty member MAJ Chris Oxendine in Afghanistan, September 2008.

This drew the attention of numerous old grads attending the conference as well as some youngsters interested in attending the academy.

MAJ Allison Day, Masters degree in Environmental Monitoring from the University of Wisconsin, left us after three years of exemplary service to the program and the department. While here Allison course directed, taught and made significant improvements to EV379-Photogrammetry and EV380-Surveying. Allison oversaw the integration of state-of-the-art innovations in digital imaging systems into our photogrammetry class keeping this course well ahead of similar undergraduate courses offered at other universities. In addition to teaching surveying Allison also taught EV203-Physical Geography. The example that she set in and out of the classroom, her dedication to excellence, humor in the classroom and ability to communicate with cadets will be sorely missed.

Academics

Seventeen cadets marched across the stage this past spring to receive their degree in Geospatial Information Science. Cadet Nathan Dyer was selected as this year's recipient of the Environmental Systems Research Institute Annual Award for Excellence in Geospatial Information Science. The competition for this years award was very close with several cadets having exemplary academic credentials. A new academic award was established this year to recognize excellence in digital photogrammetry. BAE Systems Inc., the world leader in the development of digital photogrammetric software, sponsored the award for Excellence In Photogrammetry. Dr. Stewart Walker, marketing vice president, came to the Academy from San Diego and presented the award at the GIS graduation ceremony. Cadet Nicholas Dieter, a junior, was the recipient of this year's award. The award included a commemorative plaque with the name of the recipient engraved on it as well as a complimentary one year license for BAE's SocetGXP image analysis software.

The program maintains its breadth and depth in the discipline through the eight technical courses that GIS majors take as part of their requirements for graduation. Required courses include: EV377-Remote Sensing, EV378-Computer Cartography, EV379-Aerial Photogrammetry, EV380-Principles of Surveying, EV398-Geographic Information Systems, EV477-Advanced Remote Sensing, EV478-Military Geospatial Operations, and EV498-Advanced Geographic Information Systems. Our courses in remote sensing and geographic information systems can now be found on the electives list in three other departments: Civil and Mechanical Engineering, Systems Engineering, and Electrical Engineering and Computer Science.

GIS Program AIADs

Several cadets participated in Individual Academic Development (AIAD) projects this past summer. Cadets Ramon Ramos-Diaz and Ben Agnor each spent three weeks in Panama supporting the development of an operational GIS capability at the proposed tropical test site facility. CDT Nick Dieter worked with Integrated Training Area Management personnel at Fort Greely, Alaska. CDTs Geoff Ross, Jeff Dow and Pete Friedewald spent three weeks at the Army Topographic Engineering Center and the National Geospatial Intelligence Agency (NGA) College at Ft. Belvoir, Virginia. While at the NGA College the cadets were given the opportunity to observe and participate in several GIS training courses ranging from remote sensing to surveying. SpaDak Inc. in Washington DC sponsored CDT Tom Bazemore. While there Tom worked with their software engineers refining the EarthWhere software system. Northern Command, Peterson AFB in Colorado Springs, sponsored CDT Becky Moschel. Becky was involved in updating the Homeland Defense Emergency Management GIS web-



Cadet Agnor and MAJ Irmischer collecting Geospatial Intelligence Video in the Panamanian jungle.

site on a daily basis. NorthCom was so impressed with Becky's performance that they have decided to sponsor two cadets this summer. CDT Chris Vigil spent four weeks with I-Cubed Inc. in Ft. Collins, Colorado working with their DataDoors software system. CDT Nick Dieter was hosted by ESRI at their headquarters in Redlands, California. Nick attended the ESRI User's Conference as part of this AIAD.

Geographic Sciences Laboratory

The Geographic Sciences Laboratory (GSL) continues to be the heart and soul of the GIS program. This past summer we upgraded the computers in the lab. Each computer now has three attached monitors for improved geospatial visualization. The new classroom next to the GSL has proven to be a wonderful asset,



Cadets using the Geographic Sciences Lab (GSL) after significant summer upgrades.

however, not without a few bugs. The audio-visual capabilities built into this classroom have enabled GIS faculty to fundamentally change our approach to classroom teaching.

New GPS equipment has been added to the GSL as well as new software to enhance the courses offered in the GIS program. Corporate and Department of Defense support of the GSL continues to be strong. The Environmental Systems Research Institute, better known as ESRI, renewed the unlimited site license for all of their geographic information systems software products. This enables us to continue to allow cadets enrolled in our courses to download this software onto their personal laptops and desktop computers. We also continue to offer this software to other academic departments as well as infrastructure support organizations on post such as the DHPW and ITAM offices. BAE Systems supports our photogrammetry course through the donation of SocetSet software licenses to the GSL. Visual Learning Systems has provided a site license for both their Feature Analyst and Lidar Analyst software programs. These programs are being used in the Advanced Remote Sensing course. The National Geospatial Intelligence Agency (NGA) continues to be an integral supporter of the GSL. Funding provided by the NGA has allowed us to acquire several pieces of equipment that could not be supported by the Academy. NGA support this year enabled us to acquire additional software assets and to upgrade our Real Time Kinematic surveying capabilities. This equipment upgrade will impact each of our courses and enhance the support of cadet and faculty research projects.

As mentioned previously the US Army Topographic Engineering Center has committed a significant amount of funding and resources to the GIS program. This support has enable cadets and faculty to attend and present papers at national and international conferences. Additionally, the Topographic Engineering Center has provided image processing software, hardware and imagery that has allowed us to expand the scope of topics addressed in our courses.



LTC Mike Hendricks Officer Representative

The West Point Orienteering Team enjoyed another successful year, highlighted by capturing their sixth consecutive U.S. Intercollegiate Varsity Championship last spring in Tucson Arizona. Other events of note included hosting the 29th annual West Point Orienteering Meet, training over 200 scouts at the 4th annual Boy Scout Orienteering Merit Badge Workshop, assisting the Academy's intramural orienteering program, and of course traveling to numerous orienteering meets.

Intercollegiate Champions

The orienteering team successfully defended their position as the Intercollegiate Team Champions in Tucson Arizona. This marks the 6th straight year West Point is the Intercollegiate Team Champions. The Junior Varsity Team also won their category! The Men swept the competition. Jordan Laughlin, D3 (2011) won the U.S. Intercollegiate Orienteering Individual Men's Championship. Nicholas Lewis-Walls, B1 (2010) took second and Nickolaus Fuhriman, H4 (2010) took third. The Junior Varsity competition was won by a USMAOC team consisting of CDTs Nick Fuhriman ('10, B4), Alex Reiter ('10, G4), Matt Scrivner ('10, B3), Paul Caston ('10, E3), and Ruben Veliz ('10, B2), and the second place went to CDTs Eric Flowers ('09, E3), Heidi Miller ('09, G2), Nick Lewis-Walls ('10, A3), and Josh Wiley ('10, C4).

Five cadets were named to the U.S. Team to represent the United States at the World University Orienteering Championship in Tartu, Estonia from 28 July to 3 August: Madeline Lewis, B1, 2009; Neal Trump, H1, 2009; Nickolaus Fuhriman, H4, 2010; Nicholas Lewis-Walls, B1, 2010 and Jordan Laughlin, D3, 2011. In addition, CDT Jordon Laughlin ('11, D3) was named to the U.S. Orienteering Federation's Junior World Orienteering Championship (JWOC) Team which competed 30 June - 6 July 2008 in Göteborg Sweden.

West Point Orienteering Activities

The team hosted their 29th Annual West Point Orienteering Meet, May 3rd and 4th 2008. This year we hosted three sanctioned races (middle, sprint, and classic distances) along with the U.S. Trail Orienteering Team Trials. Over 300 competitors from throughout North America ran our courses. CDT Chris Beckwith, H1 (2008) was the Meet Director; CDT Neal Trump, H1 (2009) was the course setter.

In a special ceremony COL Tom Lynch presented the inaugural Bruce B. O'Neill, Class of 1982 Memorial Cadet Orienteering Award to Cadet Kyle Stillwell in recognition of his support and dedication to orienteering at West Point. The award is sponsored by the Class of 1982 in memory of O'Neill's service to his country and his undying love for USMA Orienteering.

The West Point Orienteering Team hosted their 4th Annual Orienteering Merit Badge Clinic May 2nd, 3rd, and 4th. CDT Paul Caston organized the successful event that saw over 200 scouts earn the first set of requirements for their orienteering merit badge. Cadets taught orienteering skills, conducted hands-on exercises, and developed three courses near West Point's Camp Buckner facilities.

For additional information, please visit the clubs web site at http://www.dean.usma.edu/Departments/geo/clubs/o_team/



CURRENT FACULTY, DEPARTMENT OF GEOGRAPHY & ENVIRONMENTAL ENGINEERING

COL Eugene J. Palka, Professor and Head, Ph.D., University of North Carolina at Chapel Hill, 1995; M.A., Ohio University, 1986; B.S., USMA, West Point, 1978

COL Jason C. Lynch, Academy Professor and Deputy Head, Environmental Engineering Program; Ph.D., University of Florida 2002; M.E., University of Florida 1993; B.S., United States Military Academy, 1984

COL Laurel J. Hummel, Academy Professor and Program Director, Geography Program; Ph.D., University of Colorado, 2002; M.S.S., US Army War College, 2006; M.Ed., University of Alaska Anchorage, 1999; M.S., Pennsylvania State University, 1991; B.S., United States Military Academy, 1982

Dr. John A. Brockhaus, Professor and Program Director, Geospatial Information Science Program; Ph.D., University of Idaho, 1987; M.S., California Polytechnic State University, 1980; B.S., California Polytechnic State University, 1978

Dr. Marie C. Johnson, Professor and Program Director, Environmental Engineering; Ph.D., Brown University, 1990 AB, *magna cum laude*, Harvard College, 1985

Dr. Jon C. Malinowski, Professor, Geography; Ph.D., University of North Carolina at Chapel Hill, 1995; M.S., University of North Carolina at Chapel Hill, 1993; B.S. Georgetown University, 1991, *magna cum laude*, Phi Beta Kappa

LTC Steven D. Fleming, Academy Professor, Geospatial Information Science; Ph.D., University of Georgia, 2004; M.A., Naval War College, 1999; M.A. University of Georgia, 1995; B.S., United States Military Academy, 1985

LTC Michael D. Hendricks, Academy Professor, Geospatial Information Science; Ph. D., University of Maine – Orono, 2004; M.S., University of South Carolina, 1994; B.S., University of Delaware, 1986

LTC Mark A. Smith, Academy Professor, Environmental Science; Ph.D., University of Wisconsin, Madison, 2002; M.S., University of Wisconsin, Madison, 1989; B.S., Oregon State University, 1985

LTC Wiley Thompson, Academy Professor, Geography; Ph.D., Oregon State University, 2008; M.S., Oregon State University, 1999; B.S., USMA, 1989

Dr. Michael A. Butkus, Associate Professor, Environmental Engineering; Ph.D., University of Connecticut, 1997; M.S., University of Connecticut, 1995; B.S., United States Merchant Marine Academy, 1989; P.E., State of Connecticut, 1997

Dr. Peter P. Siska, Associate Professor, Geography, Ph.D., Texas A&M University, College Station, TX 1995; Ph.D., Comenius University, Bratislava, Slovakia 1984; MS., Comenius University, Bratislava, Slovakia 1978; BS., Comenius University, Bratislava, Slovakia 1974

Dr. Richard L. Wolfel, Associate Professor, Geography, Ph.D, Indiana University, Bloomington, 2001; M.A., University of Cincinnati, 1997; BSED, West Chester University of Pennsylvania, 1995, *magna cum laude*

Dr. Amy K. Richmond, Assistant Professor, Geography; Ph.D., Geography, Boston University, 2005; M.A., Energy and Environmental Analysis, 2002; B.S., Environmental Studies, 2000, *magna cum laude*

LTC Luis A. Rios, Geography; M.S., Texas A&M University, 1995; B.S., Rutgers University, 1989

LTC Joseph P. Henderson, Geography; PhD, University of Tennessee, 2006; M.S., University of Tennessee, 1997; B.S., United States Military Academy, 1987

LTC Michael Peloquin, Environmental Engineering; M.A Bowie State University, 2002 ; M.S., Georgia Institute of Technology, 2000; Cornell University, 1989

MAJ James F. Chastain, Geography; M.A., University of South Carolina, 2005; B.A., Presbyterian College, 1996

MAJ Jon Bushman, Geography; M.S., Geography, University of Wisconsin - Madison, 2006; B.S., Geography, University of Wisconsin – La Crosse, 1995

MAJ Jason R. Ridgeway, Geography; M.A., University of Georgia, 2006; B.S., Texas A&M University, 1996

MAJ Benefsheh D. Verell, Geography; M.A., University of Maryland, 2006; M.A., Webster University, 2001; B.S., United States Military Academy, 1997

MAJ Gayle E. Davis, Environmental Engineering; M.S., University of Maryland, 2006; B.S., Ohio University, 1994; EIT, Ohio, 1993

MAJ Eric P. McAllister, Environmental Engineering; M.S.E., Johns Hopkins University, 2006; B.S., United States Military Academy, 1996

MAJ Ian Irmischer, Geospatial Information Science; MA University of California Santa Barbara, 2006; MS University of Missouri , 2001; BS Tulane University, 1996

MAJ Brian R. Dunmire, Geography, M.S., National Defense Intelligence College, 2005; M.M.A.S., U.S. Army Command and General Staff College, 2004; M.A., St. Mary's University of San Antonio, 1998; B.A., Pennsylvania State University, 1992

MAJ Matthew P. CuvIELLO, Geography, M.A., University of North Carolina – Chapel Hill, 2007; B.S., United States Military Academy, 1998

MAJ William C. Clark, Geography, M.S., University of Utah, 2007; M.S., University of Missouri at Rolla, 2001; B.S., University of Wyoming, 1996

MAJ Hannon A. Didier, Geospatial Information Sciences, M.S., Louisiana State University, 2007; B.S., United States Military Academy, 1997

MAJ David P. Roux, Environmental Engineering, M.S.E., Environmental Engineering, The Johns Hopkins University, 2007; B.S., Civil Engineering, University of Virginia, 1998

MAJ Adam J. Czekanski, Environmental Engineering, M.S., University of Texas, 2007; B.S., Cornell University, 1998

Ms. Sandra Dunlap, Instructor, Geography, M.A., University of South Florida, 1994, B.A., University of South Florida, 1991

MAJ James Jordano, Environmental Engineering; M.S., Johns Hopkins University, 2002; M.S. University of Missouri , 1996; B.S., United States Military Academy, 1992

MAJ Chris Fuhrman, Geography; M.A. University of Hawaii, 2008; B.S. United States Military Academy, 1998

CPT Travis Rayfield, Environmental Engineering; M.E., University of Florida, 2008; M.S., Missouri University of Science and Technology, 2003; B.S., United States Military Academy, 1999

CPT William Wright, Geospatial Information Science; M.S., University of Florida, 2008; B.S., United States Military Academy, 1997

Ms. Heidi Natel, Instructor, Geography; M.A. SUNY Oneonta, 2004; B.S. SUNY Brockport, 2000

Public Affairs Officer
United States Military Academy
Department of Geography and Environmental Engineering
745 Brewerton Road, 6th Floor, RM 6007
West Point, NY 10996-1695

MAIL TO:

