

Dean's Weekly Significant Activities Report

3 October 2012

The Dean's Weekly Significant Activities Report is an internal report on all activities conducted within the Departments, Centers & Staff. The Report is provided to the Dean for situation awareness, throughout the organization for shared situation awareness, and to select external organizations for outreach and communication. Portions of the Dean's Weekly Significant Activities Report are further staffed in a report to the Superintendent. POC for the report is MS Lesley Beckstrom at 938-5105.

Picture of the Week



On 24 Sep, four D/SE cadets traveled to Redstone Arsenal, AL, for research supporting their capstone project. The cadets were Chris Law, Phil Hilaire, Matt Oechsel, and Mario Turi, all class of '13 Their project is to find ways to improve the human-machine interface (HMI) used by operators of Army unmanned aircraft systems (UASs).

Department of Mathematical Sciences



Cadets in Dr Csilla Szabo's and Dr. Frank Wattenberg's sections of MA-391, Mathematical Modeling and Simulation, began a mini-project developing a decision support model to help soldiers manage operational energy using the SWIPES (Soldier Worn Integrated Power Equipment System) currently being deployed. The solar blanket shown here is part of the SPM (Squad Power Manager). In addition to the solar blanket the SPM includes a variety of cables and adapters and a hub that enables soldiers to recharge the batteries in their individual SWIPES from sources in the field. The Core Interdisciplinary Team (CIT) was recently given a full platoon set of the SWIPES (6) in order to promote the study of energy security, the theme of the interdisciplinary program.

The cadets began the mini-project by working with the SWIPES and SPM – gaining hands-on experience with equipment they will be using in theater and learning about the complexity of the problem being modeled. From left to right, Dr. Frank Wattenberg, CDTs Jake Taylor (Coast Guard Academy), Jacob Carpenter, Ben Potter, and Nate Einfeldt.

Library

During the period from September 24 through Oct 1, 293 Plebes received Library Instruction by attending a Library Poker Run during their RS 101 class session. Library staff members welcomed cadets to 5 checkpoints throughout the Library, where the cadet teams performed tasks designed to help them learn to use Library resources such as databases, the online catalog, checking out and renewing books, and getting to know the types of rare and historic materials housed in our Special Collections and Archives. Each team drew a card after finishing tasks at each checkpoint, and prizes were awarded to the teams with the best poker hands at the end of the tour. Overall, 20 Library staff members from four different Library Divisions (Access Services, Information Gateway, Material Processing, and Special Collections and Archives) participated, in order to help the cadets get to know the people and resources that are here to support them in their academic endeavors. Eighteen class sections of RS 101, taught by 10 different instructors from the Center for Enhanced Performance, toured the Library during this week+ of Poker Runs, and while spirits were high and competition was fierce for the best hand of cards, all cadets learned the most important Library lesson of all: that the Library staff is here to help them excel at West Point.

Department of Electrical Engineering & Computer Science

Awards Presented for Counter-IED AIAD

The EECS Dept. sponsored an awards luncheon for the cadets, staff, and faculty involved with the Counter-IED AIAD. The AIAD, conducted in a secret computer lab in Mahan Hall, took place over the summer. The AIAD was a joint project between EECS, Math, and Systems Engineering. The cadets worked on computer software which uses an algorithm to determine possible IED caches in Afghanistan. The AIAD CIC, Cadet Jeffrey Nielsen, was recently mentioned in an article on www.army.mil about the U.S. Military Academy seeks to enhance science, technology ties.

(http://www.army.mil/article/87435/U_S__Military_Academy_seeks_to_enhance_science__technology_ties)

COL Ransbottom, the Computer Science Program Director, spoke at the event, commented on the uniqueness of the AIAD which supported combat operations in theater and gave the cadets exposure to real-world tools and data used by intelligence analysts in Afghanistan. Participating cadets and staff received certificates of appreciation for a job well done. Currently, the department is working with the Office of the Secretary of Defense (OSD) to continue the hunt for IED's in Afghanistan while supporting cadet education.



(from left to right) MAJ Paulo Shakarian – EECS, CDT Ellis Valdez, MAJ Jesse Fleming – EECS, CDT Geoffrey Moores, MAJ Devon Callahan – EECS, Ms. Anne Barrett – Systems Engineering, MAJ Charles Levine – Math, CDT Andrew Oswald, LTC Paul Maxwell – EECS, CDT Jeffrey Nielsen, CDT Tim Stein, CDT William Wright



AIAD CIC Jeffrey Nielsen receives a Certificate of Appreciation from AIAD OIC MAJ Paulo Shakarian

EECS Faculty Member Publishes in IEEE Transactions on Nuclear Science Journal

MAJ Raymond Blaine recently co-authored a publication in the IEEE Transactions on Nuclear Science Journal. A novel RHBD technique utilizing charge sharing to mitigate single-event voltage transients in differential circuits is demonstrated experimentally. Differential charge cancellation (DCC) layout leverages the inherent common-mode rejection of differential circuits to mitigate voltage transients induced by ion strikes. A simple layout variation transforms normally single-ended error signals into common-mode signals that are mitigated by the differential signal path. This layout change maintains the matching achieved via a standard

common-centroid layout but incurs negligible area penalty.

Title: Differential Charge Cancellation (DCC) Layout as an RHBD Technique for Bulk CMOS Differential Circuit Design

Authors: R.W. Blaine, N.M Atkinson, J.S. Kauppila, S.E. Armstrong, N.C. Hooten, T. D. Loveless, J.H. Warner, W.T. Holman, and L.W. Massengill

DCC layouts can provide more than an order of magnitude reduction in sensitive area across a wide range of laser energies. Evidence is presented that suggests this hardening technique will be even more effective for angled strikes and smaller device geometries.

INNOVATION CADETS VISIT TECHNOLOGY VISIONARIES IN BOSTON

On 24-25 September 2012 COL Barry L. Shoop, Deputy Head of the Department of Electrical Engineering and Computer Science and Cadets Nicholas S. Fettinger (EE – Honors, '13), Kevin Keyes (CS – Honors '14), Stephen E. Rogacki (CS – Honors, '13), Isaiah T. Salsman (CS – Honors, '13), Vince C. Schuele (EE – Honors, '13), and Daniel R. Kennedy (EE – Honors, '13) visited Boston, MA to conduct interviews of forward thinking technology leaders and innovators as part of XE492 – Disruptive Innovations. On Monday, 24 September, cadets discussed disruptive technology and innovation with Professor Owen Coté, Director of the Security Studies Program which is part of the Center for International Studies at MIT. Professor Cote discussed the integration of technical and political



Discussions with Professor Cote at the MIT Sloan

analysis and the impact on national and international security problems. Cadets also interviewed Dr. William Peters, the Executive Director of the Institute for Soldier Nanotechnologies at MIT that is engages MIT, industry and the Army in the development of nanotechnology for the purpose of advancing Soldier protection and survivability capabilities. Cadets had the opportunity to discuss organizational structure, getting the right people and organizational culture and how each contributes to, enables and encourages innovation and creativity. The cadets also visited the MIT Biomimetic Robotics Lab where the robotic cheetah is being developed. Later in the day, the team visited an innovative approach to startup company physical space called *Artisan's Asylum Inc.* which provides an artisan-style facility with common prototype equipment and machinery that



Cadets at the MIT Biomimetic Robotics Lab with the Robotic Cheetah.

drastically reduces start-up costs. They also heard of a new approach to generating startup investment capital called *Kickstarter* that is competing with the traditional venture capital model. On Tuesday, the group met with Bernard Gordon to discuss creativity, innovation, and technical leadership. Gordon was founder, chairman, and CEO of Massachusetts-based Analogic Corporation and holds more than 200 patents worldwide. A lifelong inventor, Gordon's inventions include the fetal monitor, the high-speed analog-to-digital converter, the instant imaging computer-aided tomography scanner, Doppler radar, and an advanced bomb-detection device. In 1986, he received the National Medal of Technology from President Ronald Reagan and in 1992 he received the Benjamin Franklin Award for Innovation in Engineering and Technology from the Franklin Institute. Later the group visited MIT Lincoln Laboratory where the team met with Dr. Eric Evans, Director of Lincoln Laboratory, and scientists and engineers developing projects in robotics, cyber security and alternative energy systems.

The Disruptive Innovations course is externally funded by the Office of Naval Research (ONR).



From left-to-right: CDT Salsman, CDT Rogacki, CDT Kennedy, Bernie Gordon, CDT Keyes, CDT Fettinger, CDT Schuele and COL Shoop.

Department of English and Philosophy

1. On 14 September, fifteen cadets in the African American Arts Forum gathered in the Haig Room to listen to jazz and share spoken word poetry. Poets sought not only to evaluate their personal experiences, but also their roles as officers and leaders in an evolving, unstable world. Audience members included fellow poets, interested cadets, and OIC MAJ Karin Gresham, all of whom provided support and helped enrich discussion of the works. The African American Arts Forum will continue to host these jazz and poetry nights throughout the semester.



2. On 21 September, the Native American Heritage Forum, part of DEP's Cadet Fine Arts Forum, attended a Powwow at FDR Park in Yorktown Heights, NY. Like USMA's *Keepers of the Peace* Native American Powwow, it was hosted by the Redhawk Native American Arts Council and featured spectacular performances of Traditional, Fancy, Smoke, and Grass Dance, all set to mesmerizing drum and song and surrounded by a backdrop of Native American cuisine and crafts. Mrs. Magdalena Morningfire (pictured below) escorted MAJ Markley and six members of the forum on a special inside tour of this captivating cultural experience.





3. On September 10th and 24th, forty cadets in the USMA Opera Forum met to watch the first two acts of Richard Wagner's "Das Rheingold," the first opera in Wagner's epic tetralogy "Der Ring des Nibelungen." OIC Dr. Marc Napolitano presented background information about Wagner's life and his various musical, artistic, political, and social philosophies. The group also discussed the issue of power vs. love, which is the central theme running through Wagner's "Ring Cycle," and connected it to the themes in later fantasy epics such as J. R. R. Tolkien's "The Lord of the Rings" and George R. R. Martin's "A Song of Ice and Fire." The Opera Forum will continue to analyze Wagner throughout the semester's meetings.

4. As part of DEP's outreach to the Army and continuing work with the Center for the Army Profession and Ethic (CAPE), eight members of our philosophy faculty met with the CAPE director, COL Jeffrey Peterson, and his staff to discuss ongoing projects and opportunities for future collaboration. These opportunities include support to upcoming Army wide campaigns concerning the profession as well as upcoming Army-wide education and training programs that CAPE will conduct. Faculty members and CAPE personnel also discussed future opportunities for collaboration in research and doctrine formulation. Since the start of the academic year, Department of English and Philosophy faculty members have provided input to two Army publications which will be released to the Army in 2013. These include Army Doctrine Reference Publication (ADRP) 1-0 which will augment ADP 1, *The Army*, and TRADOC Pamphlet 525-3-7, *United States Army Human Dimension Concept*. Currently, our faculty is reviewing a CAPE handbook on character development and conducting an effectiveness study of CAPE materials designed for the Army Master Army Profession and Ethic Trainer course.

Collaboration with CAPE remains a focus for the department's outreach to the Army and a developmental opportunity for our faculty.



Department of English and Philosophy faculty meet with the director and staff of the Center for the Army Profession and Ethic to discuss ongoing and future collaboration efforts.

5. On Thursday, 27 September, EN101 Composition faculty hosted a visit by Dr. Kurt Spellmeyer, Writing Program Director at Rutgers University. Dr. Spellmeyer is one of the co-editors of the EN101 course text, *The New Humanities Reader*, as well as the author of several books of his own that address composition course practice and the general state of academia. At West Point, Dr. Spellmeyer led the EN101 faculty in a seminar on writing assignment sequences, participated in a lunch-time roundtable discussion of composition-related subjects, and visited several classes. This marks the second year that Dr. Spellmeyer has visited West Point and offered his expertise to the EN101 faculty.



Dr. Kurt Spellmeyer leads a workshop with EN101 Composition faculty in the Jefferson Library.

6. On Friday, 28 September, the Department of English and Philosophy's Creative Arts Project hosted a performance by the Exit12 Dance Company in the Haig Room. Exit12 specializes in contemporary dance interpretations of current political, military, and soldier-related themes and issues. At West Point, Exit12 performed "Re-E-volution," a dance exploration of the Arab Spring uprisings and "Conflicted," which portrays the interaction of US military and Arab cultures in the Iraq war. Cadets from EN302, which focuses on "Revolutionary Egypt," and the World Literature elective were in attendance. The artistic director of Exit12 is Roman Baca, a Marine veteran who served in Fallujah in 2005-06. Following the performance, Exit12 dined in the Cadet Mess Hall and took a tour of the central area. The Exit12 performance was the centerpiece of a visit by twelve Vassar College students as part of the Vassar Collaboration project begun in spring of AY12. The Vassar Collaboration is underwritten by an Andrew Mellon Foundation initiative designed to forge relationships between military academies and civilian liberal arts colleges. The collaboration consists of mutual visits to their respective campuses by West Point cadets and Vassar students. The intent is to give cadets and students a chance to explore each others' worlds in order to learn from differing perspectives and understand common interests and shared experiences. The specific purpose of the visit by Vassar students to West Point was to expose Vassar students to a "day-in-the-life" of a West Point cadet. In addition to watching the Exit12 performance, Vassar students attended class with cadet hosts, ate in the Cadet Mess Hall, and observed cadets taking the Indoor Obstacle Course Test. A highlight was the participation of several Vassar students in Dr. Marc Napolitano's EP367 Drama class, where students and cadets together staged scenes from Henrik Ibsen's *Hedda Gabbler*. The next event in the Vassar Collaboration is a trip to Vassar on 25-26 October to participate in a series of workshops with artists exploring war and military-related themes. The Exit12 performance was this year's kick-off event for the Creative Arts Project (CAP). The Creative Arts Project is the Department of English and Philosophy's initiative to make artistic endeavor by, for, and about soldiers and cadets central to the West Point experience.



Exit12 Dance Company in performance in the Haig Room, Jefferson Library, 28 September.



Department Head COL Scott Krawczyk thanks the Exit12 Dance Company after their 28 September performance. Exit12 artistic director Roman Baca is to COL Krawczyk's right



West Point cadets and Vassar students in attendance at the Exit12 Dance Company performance.



Professor Maria Hoehn, the Vassar faculty sponsor of the Vassar Collaboration, at lunch in the Cadet Mess Hall with members of the Department, Exit12 dancers, cadets, and Vassar students.

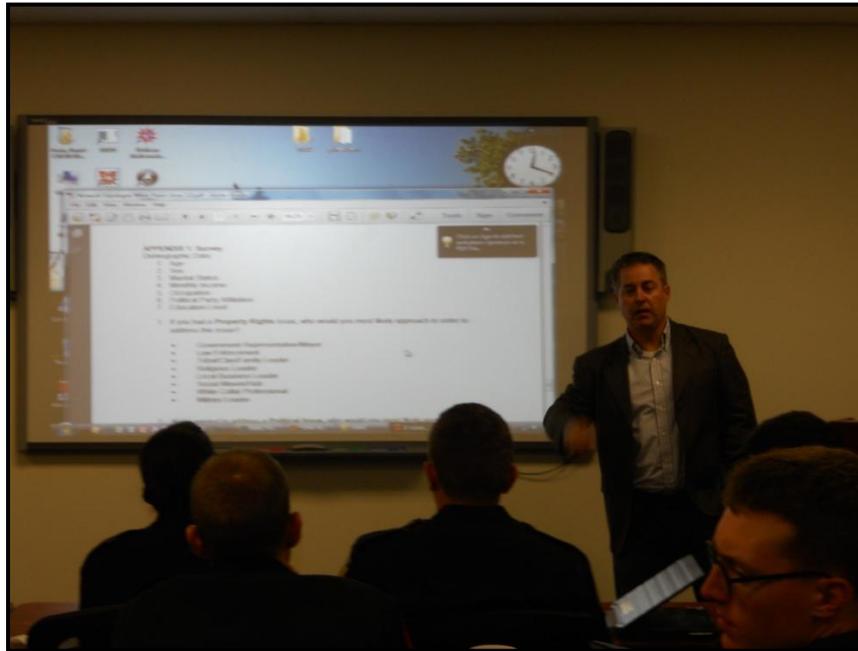
Network Science Center

For the latest information from the Network Science Center visit our blog

The Central Node: <http://blog.netsciwestpoint.org/>

Dan Evans gives presentation at SNAC

Dan Evans gave a presentation to the cadets involved in SNAC (Social Network Analysis Club) on Monday. Mr. Evans shared how he has used an instrument called a Position Generator to gather data on social capital in frontier markets. The data is used to build a network where each person's occupation points to prestige and their access to resources. Mr. Evans went on to share how he used this type of data collection instrument in his Ethiopia research this summer.



SNAC meets every Monday 1200 in Thayer Hall, room 120 lunch available.

POC: CDT Carl Rios

Research librarian shares expertise with high school teams

Laura Mosher, a research librarian at the cadet library, taught a class last Sunday at the Newburgh Free Library. The class was part of a STEM outreach project which teaches high school students scientific processes, technology, engineering, and math by doing a yearlong network science research project. Ms. Mosher's class demonstrated how to use the online resources and databases that are available within the students' community. For many members of the two teams of students this was their first experience in how to use online resources. The

teachers participating in the project were also able to take the information back to students in their other classes.



First Brown Bag lunch of the year

Dr. Chris Arney will give the first NSC Brown Bag lunch talk of the year next Wednesday, October 10, 2012. The talk will be held in TH 120 (the math conference room) from 1200-1300. Bring your lunch and come learn more about network science from the NSC's Network Science Chair and Director of Curriculum Integration and Interdisciplinary Activities.

POC: Tish Torgerson x0804

Department of Systems Engineering

On 20 Sep, 16 cadets from D/SE (and one 2LT recent D/SE graduate) conducted a VTC with 12 junior company grade officers from the 173rd ABN BDE, currently in Afghanistan. The cadets had the opportunity to ask questions relating to becoming a platoon leader, leading Soldiers in combat, various duty positions held, and a variety of other questions relating to their future commissioning. The 173rd ABN BDE panel had a diverse mix of branches in the VTC (QM, TC, AR, IN, SC, MI, OD, EN, MS) that could offer perspective into many of the branches our cadets are interested in. The event ended with each member of the 173rd offering some "advice" on what they would recommend our cadets should focus on during their last year at West Point.





On 24 Sep, four D/SE cadets traveled to Redstone Arsenal, AL, for research supporting their capstone project. The cadets were Chris Law, Phil Hilaire, Matt Oechsel, and Mario Turi, all class of '13. They were accompanied by their advisor, Dr. Roger Chapman Burk. Their project is to find ways to improve the human-machine interface (HMI) used by operators of Army unmanned aircraft systems (UASs). It is sponsored by the Army's Project Manager for UASs (PM UAS). The cadets examined current control systems, observed an RQ-7A Shadow flight from launch to landing, reviewed relevant recent research projects at the Joint Technical Center Systems Integration Laboratory (JSIL), interviewed experts working for the project manager for aviation mission planning systems (PM AMPS), and looked at cockpit simulators operated for the Army at nearby Camber Aerospace Defense Group.



Department of Physics and Nuclear Engineering

Completed Events

Colloquium: On 28 September, COL Sones and LTC Allen presented a colloquium about the Linear Accelerator and its impact on the department. Last year during Spring Break, the Department of Physics and Nuclear Engineering fielded a PELLETRON particle accelerator to complement its research capabilities and to strengthen its connections between classroom studies and laboratory activities. Since then, selected Staff and Faculty have worked to establish operator protocols and safety procedures, and today we are at the cusp of using this facility in our classes and for our cadet and faculty research. This colloquium (1) introduced the Department to how the accelerator works and its specifications, (2) discussed three possible Ion Beam Analysis experiments (Rutherford Backscattering, Nuclear Reaction Analysis, and Particle Induced X-ray Emission) that may be incorporated into CORE, Nuclear Engineering, and Advanced Physics curriculum, and (3) highlighted the roadmap for the accelerator with the on-going building renovations.

Future Events

National Laboratory Visit: On 22 October, Jon Ventura from Los Alamos National Laboratory, Barry Goldman from Lawrence Livermore National Laboratory, and Tim Wall from Sandia National Laboratory are planning to visit USMA. The National Labs offer exciting areas of research in all areas of physical and social sciences, engineering, and mathematics and computer science. Dr. Dan Schultz is organizing briefing for faculty and cadets.

Department of Geography and Environmental Engineering

1. Guest Lecture – EV300 (Environmental Science). On 21 September, Dr. Heidi Kretser of the Wildlife Conservation Society spoke to all cadets enrolled in EV300 Environmental Science. Dr. Kretser's talk focused on her current work with DoD combating illegal wildlife trade in Afghanistan. The talk highlighted the importance of biodiversity and the need for conservation of wildlife and natural resources. She also discussed threats arising from profit generated by the sale of endangered and threatened species going to fund terrorist activities. Through her work and that of others in the Wildlife Conservation Society, DoD has been able to reduce significantly the sale of illegal wildlife items on military bases in Afghanistan and educate Soldiers on the repercussions of purchasing these items. This lecture complimented the course's first block on ecology and a biodiversity lab completed in a previous lesson. The POC is CPT (P) Robbins, cristian.robbins@usma.edu.



Picture: EV300 cadets listening to Dr. Kretser's lecture

2. National Intelligence University and Defense Intelligence Agency 40-hour Graduate Seminar Attendance.

MAJ Tom Hanlon attended a 40 course credit hour graduate seminar in Bolling, AFB, Washington, DC from 17-21 SEP entitled: "Conflict, Regime Stability, and Security in East Africa". The course was organized by DIA and accredited under the National Intelligence University. Multiple academics, cleric experts, and practitioners to include former Ambassador Shinn spoke in depth on a myriad of interconnected cultural and security issues that shape the dynamic geopolitics in the region from the Horn of Africa to Sudan and South Sudan. MAJ Hanlon is a Foreign Area Officer to Sub-Saharan Africa and teaches the Geography of Africa course in the Department. Tom along with Dr. Amy Krakowka will integrate some of the topics into this year's SCUSA Roundtable discussion on Africa in November. POC is MAJ Tom Hanlon at thomas.hanlon@usma.edu.



Picture: MAJ Hanlon attends a session discussing stability and security in the Horn of Africa.

3. Guest Lecture: The Department of Geography and Environmental Engineering and the Center for Languages, Cultures, and Regional Studies (CLCRS) organized a lecture by Dr. Vaughn Bryant from Texas A&M University, Department of Anthropology entitled: "Forensic Palynology: Military Applications & How it is used for Preventing Terrorism" on 01 October 2012. Dr. Bryant shared his forty years of research that he conducted for government institutions mostly for the CIA, FBI, and Homeland Security Departments and also DOD. His research is based on using pollen grains to track criminal and terrorist activities. POC is Dr. Peter Siska at peter.siska@usma.edu.

4. Faculty Outreach. LTC Jeff Starke and Ms. Kimberly Quell (D/G&EnE Lab Technician) conducted a STEM outreach lecture titled "Microbes and Me: A macrobe in a microbial world" for Mrs. Carol Johnson's 8th grade class at the West Point Middle School. The students were able to discuss the recent topics on microbiology and their application to environmental engineering topics such as treating wastewater and producing energy. The POC is LTC Jeff Starke, jeffrey.starke@usma.edu.



Picture: LTC Jeff Starke demonstrates the principle of bioelectrogenesis using a microbial fuel cell that is designed to treat waste water and produce electricity with electrogenic bacteria.

Department of Chemistry and Life Science

1. SOLDIER POWER TRAINING AT THE UNITED STATES MILITARY ACADEMY (USMA)!!

On 25 SEP 12, Product Director Soldier Power (PD SP) visited the Department of Chemistry and Life Science and issued a complete platoon set of Soldier Power equipment consisting of the Squad Power Manager, the Soldier Worn Integrated Power Equipment Systems (SWIPES), Conformal Batteries, the 10Watt Solar Charger and the Modular Universal Battery Charger (MUBC) to the Core Interdisciplinary Team (CIT) and conducted a full day of outstanding training to support its use in the ongoing Operational Energy effort within the core curriculum. LTC Chip Elliott, Department of Chemistry and Life Science, coordinated the effort with Mr. Steve Mapes, Director - Soldier Power, PM Soldier Warrior. Participants included members from the Departments of Chemistry & Life Science, Mathematical Sciences, and Physics and Nuclear Engineering. Additionally, representatives from the Maneuver Center of Excellence (MCoE) and Army Capabilities Integration Center (ARCIC-ACD) attended and coordinated with the CIT to share lessons learned on the educational aspects of operational energy and share data that will enable

cadets to calculate efficiencies, measure power profiles and identify load configurations for the Soldier Power equipment. This equipment will be utilized in the development of a number of key CIT events to include DC&LS annual Military Chemistry Lecture, MA103's Mini-Capstone Exercise, and CIT's Capstone Exercise in CH102. It will also find wide use in classroom settings throughout the curriculum. The cadets' exposure to this rapidly evolving technology will contribute significantly in facilitating a positive cultural shift in the way new leaders consider and plan for Soldier Power and Operational Energy on the conventional battlefield.



X6 Squad Power Managers (SPM)



X6 Soldier Worn Integrated Power Equipment Systems (SWIPES)



X12 Conformal Batteries



X10 10Watt Leader Portable Solar Charger



X4 Modular Universal Battery Charger (MUBC)

Soldier Power Equipment



LTC Chip Elliott, DC&LS, and MAJ Michael McClure, DMATH, configure the SWIPES equipment.



MAJ Denise Little and CPT John Williams, DC&LS, utilize directions to configure cables on SWIPES.



LTC Chip Elliott, DC&LS, and CPT David Bergmann, Assistant TCM-Soldier, MCoE, employ a 60 Watt Solar Charger to recharge a battery.

2. Chemical Engineering Faculty and Cadets Learn the Science and Engineering behind Chocolate!!

On Friday 28 September 2012, the Cadets of the AIChE Club and the section of the club affectionately named the West Point Chocolate Factory (WPCF) made a journey to the “Sweetest Place on Earth”, Hershey, PA, in order to visit the Hershey Company. The AIChE Club cadets went to Hershey, PA in order to learn more about chemical engineering in the chocolate industry from one of the biggest producers of chocolate in the country, the Hershey Company¹. The cadets visited the Hershey Research and Development Center and newly renovated Hershey West Facility. For the fourth year in a row, this trip section was hosted by Mr. Matt Andersen (USMA '94) who organized an excellent and memorable program and went above the call of duty when he and his wife Lauren hosted a BBQ and professional development time with the cadets on the evening prior to the tour. The cadets gained valuable knowledge about applications of chemical engineering and the unique story behind the Hershey Company. The cadets also had a super time and returned with an appreciation for chemical engineering in practice and a better idea of how to improve chocolate making as an academic club function. Through the recent hard work of Cadets Laura Ruiz and Amy Hill, West Point has been making chocolate again this year with plans for a club night demonstration in November and a chocolate tasting event at the Clobber Kent State Tailgate on Saturday 13 Oct 2012. The efforts of the following Hershey employees are much appreciated and commendable, Mr. Jim St. John Vice President for North American Chocolate Product Development, Mr. Tom Smullen, Process Engineer, and especially Mr. Matt Andersen (USMA, '94) and his wife Lauren, for making this experience extra special for the chemical engineering cadets.

1.(<http://www.thehersheycompany.com/about-hershey.aspx> accessed 25 Sep 2012)



Cadets of the Chemical Engineering Club strike the “Hershey Moment of Chocolate Joy and Happiness”
Pose outside of Chocolate World in Hershey, PA

3. C&LS Cadets and Faculty help with Scout Day at USMA!!

Dr Nick Fell (OIC) and others from the Department of Chemistry and Life Science participated in the scout day festivities that were conducted out on Daly Field on Sat Sept 28th from 0700-1130. Instructors involved were Dr Kaitlin Rinke, LTC Brinkley, MAJ Little and CPT Williams. We had a good showing of cadets involved as well; these individuals include CDTs Christopher Wallace, Samuel Brent, Seth Harbol, Seok Jung, Samuel Brown, Sean Fitzgerald, Anthony Cox, Joshua Simonds, and Alex Parra. Experiments conducted were ublik, gack, hydrogen balloons, Mentos and Coke, sacrificial Gummi bears and shooting of potato guns. Some pictures of the event are included and it can be said that everyone involved; instructors, cadets and scouts had a great time. The organizers of the event approached us at the end of the event to invite us back and to ask if we might be interested in supporting other scout event.





4. LTC John Burpo Represents C&LS in USMA-Natick Energy Harvesting Research Meeting

On 26-27 Sept LTC John Burpo from the department of Chemistry and Life Science joined cadets and faculty from CME on a visit to Natick Soldier Research, Development and Engineering Center (NSRDEC) to explore a cross-collaborative opportunities on the energy harvesting development program. NSRDEC and industry partners presented Energy Harvesting program goals, objectives and deliverables to USMA Cadets and Faculty. LTC Burpo presented a 6.1 basic research concept overview of electro-mechanical materials research ongoing in the Department of Chemistry and Life Science's Multi-Functional Materials Lab. Other Army meeting participants included the NSRDEC MILDEP, Program Director Soldier Power, PEO Soldier; Soldier Requirements Maneuver Center of Excellence (MCoE), Fort Benning, GA; Army Research Labs - Sensors and Electron Devices Directorate (SEDD); and Communications-Electronics Research, Development and Engineering Center (CERDEC). NSRDEC scientists conducting 6.2 research presented energy harvesting research that may provide enabling technology to the NSRDEC Energy Harvesting initiative. Following the technology presentations and collaboration discussions, a tour of NSRDEC's science labs and unique facilities was conducted.

Department of Foreign Languages

Completed Events

Arabic. Four Arabic SAP cadets are currently in their fourth week of classes at Al Akhwayn University in Ifrane, Morocco. The students recently attended a discussion of current political events hosted by the Moroccan Politics Club on the sources and implications of “Occidental vs. Oriental” reactions to the Youtube video that sparked unrest several weeks back.



In these photos: Cadets Alex Jefferies and Ahmad Nasir in an Arabic Media class. Dr. Chekayri (of Al Akhwayn University) challenges the students in reading complicated articles and then discussing the news reports in Arabic.

Arabic DCA Event: The Arabic Club supported Diversity Day on 2 October with a table displaying Arabic mementos from across North Africa and the Middle East. Some cadets dressed in traditional Arab attire from Morocco to Saudi Arabia, and put together a sampling of some traditional Arab food. In the photo are Cadets (L-R) Hamid Nasir and Omar Hammouda. Also supporting the event were Cadets Sam Fatool, Steven Vollmer, Eric Murray, Louis Joseph, Daniel Pinho, and Colin Lewis.



In this photo: Guests to the Arabic Club table enjoy Arabic food and culture displays.

French. SAP Cadets are currently in classes at their respective universities; eight at St. Cyr, two at Université Catholique de Lyon, and two at Université Catholique de Lille. “Le bahutage” continues for the new cadets of St. Cyr. It will culminate mid-November with the official title of “élève-officier” bestowed on fourth year cadets (freshmen). The period of the “bahutage” includes supervised events aimed at inculcating new cadets and places various levels of stress on them. Cadets will travel to Nîmes, France to conduct a 2 week training exercise with the French Foreign Legion. Cadets Rogacki '14 and Botero '13 in Lyon will conduct coordination meetings with representatives of the 21ème RIMa (Marine Infantry Regiment) to prepare for upcoming training in Fréjus, France

SAP CDTs Rogacki and Botero at Université Catholique de Lyon, completed the Summer intensive language school and have earned their diplomas and place for the next session for the fall. Approval for their participation in field training with a French unit is complete and they will train from 28 October to 2 November 2012.

German. German SAP cadets continue their immersion experiences at their academic institutions in Hamburg and Munich, Germany, and Wiener-Neustadt, Austria. Cadets in Hamburg traveled south to Munich to experience first-hand the Oktoberfest. Cadets in Austria tour the country during their stay, getting exposure to the varying terrain of each state. As the Austrian cadet corps graduates its senior class at the end of September/early October, the USMA SAP cadets play a unique role in representing the international relationships during the Graduation parade through the city of Wiener-Neustadt.



In this photo: Cadet Jeff Huddle, far left, marches next to a cadet officer from Lithuania; next are Cadets David Hamski, Zach Brune, Alex Canacci, and two French cadet officers.

On Friday, 28 September, DFL hosted the annual Oktoberfest prior to the Army-Stony Brook game. Many DFL staff, faculty and family members as well as International Cadets and Officers and DFL majors from the classes of 2013 and 2014 participated in the event. German Language cadets in LG371 entertained the DFL Oktoberfest with a traditional dance on Friday, 28 September. Approximately 15 cadets, lead by the LG371 course director Dr. Xenia Harwell and CDT Michael Geissler, '15, B1, took partners from the audience to perform the Schuhplatter.



German-American Steuben Parade Chair, Mr. Herb Seeff, presents cadets of the German Language Forum with a certificate of appreciation for their support and participation in the 55th Annual Steuben Parade in NYC.-at the DFL Fall Festival –Oktoberfest.

Dr. Brian McInnis will attend the German Studies Association conference on Friday, 05 October. Dr. McInnis will present a paper at the 36th Annual Conference in Milwaukee, Wisconsin on the topic of the representation of the eye in physiology in 18th century German language literature.

On Sunday, 14 October, young officers from the German Armed Forces Information Officers division will pay a visit to West Point. Hosted by LTC Fidorra, the group will tour the Visitors Center and the West Point Museum before receiving a walking tour of the attractions surrounding the Plain.

Russian: Two Russian students from Voronezh State University arrived at West Point on 28 September to participate in the McDonald Cadet Leadership Conference from 4-7 October. The two students enjoyed the DFL Oktoberfest on 28 September, as well as all Army Game Day activities on Saturday, 29 September. They will "shadow" their cadet sponsors this week as they prepare to participate in the conference starting on Thursday, 4 October.

The Institute for Innovation and Development

Research Operations:

All FY 13 rollover WBS's have been established. We were informed of the following:

As of 7:42 PM last night, the WBS's did finally roll over by GFEBS. However, only one rolled over properly. All G8 data compilation has occurred and they are meeting first thing this morning to discuss the way forward and/or fixes to the situation. G8 will act immediately to ensure accurate information is provided to you and all interfacing systems are set up properly. G8 should have final resolve by COB today or noon tomorrow to include all DTS LOA's and AXOL interfacing.

Two MIPR's have been received to be processed in FY13. We expect many more to be arriving soon. Please note – send all paperwork pertaining to MIPR's and any other external funding to Diana Matautia, IID – RO, not directly to G8. If you have any questions, contact her at x6318.

AARS

Gross Attendance Report 25 Sep - 2 Oct 2012

Date	CADET ABSENCES	ABSENCES	ARRIVED LATE	DEPARTED EARLY	TOTAL
02-Oct-12	107	219	60	2	281
01-Oct-12	95	141	48	6	195
28-Sep-12	265	464	34	7	505
27-Sep-12	246	406	49	6	461
26-Sep-12	154	300	40	4	344
25-Sep-12	187	300	64	1	365

Cadet Absences equals number of cadets absent 1 or more class period

Absences are the number of classes missed by the cadets that were absent

Department of Behavioral Sciences and Leadership

Completed Events

Follow BS&L on Facebook: <http://www.facebook.com/pages/West-Point-NY/Department-of-Behavioral-Sciences-Leadership/44253274507>

Cadet Outreach/BS&L Majors/Alumni Tailgate.

BS&L held a departmental tailgate for its faculty, families, majors and alumni on 29 September from 1600-1830. The event attracted approximately 160 members of the BS&L family, including many of our newly designated majors. They joined the BS&L family in discussions about courses, departmental clubs and activities, and BS&L AIADs.

Picture below: Cadets and BS&L Faculty discussing BS&L activities and programs

Faculty Recognition.

MAJ Matt Clark was elected to serve a 6-year term on the National Board of Directors for the Military Officers Association of America (MOAA). MOAA is the nation's largest and most influential association of military officers. With more than 370,000 members from every branch of service - including active duty, National Guard, Reserve, retired, former officers, and their families – MOAA works to support a strong national defense and represents the interests of military officers at every stage of their careers. MAJ Clark will be installed as a member of the board at the Annual Meeting in Washington, DC at the end of October. He will be installed with 11 senior officers from across the seven uniformed services and will join 24 officers that will remain on the board for at least the next two years. **POC: MAJ Matt Clark, BSL, x5644.**

Faculty Outreach:**Teaching Outreach-Guest Speaker.**

LTC Todd Woodruff was the guest teacher/speaker (via VTC) 26 September for course titled the Sociology of Death and Dying offered at Washington College's Sociology and Anthropology Program. The class addressed how the Army relates to death and dying from a institutional and leadership perspective. Topics for the class included how the Army deals with casualties from the perspectives of the unit, the home community, and the family; how the Army memorializes its fallen members; and how the Army trains, socializes, and prepares Soldiers for combat and the use of violence. **POC: LTC Todd Woodruff, BSL, x1788.**

WPNP Outreach.

BS&L adjunct professor and co-director of the West Point Negotiation Project, Jeff Weiss, presented last week at the U.S. Army War College's Senior Leader Seminar. Jeff spoke on principled negotiation, sharing both negotiation strategies and reflections on their applicability to the kinds of challenges Army colonels face as negotiators, advisors to senior negotiators, and leaders of negotiators. Discussion included lessons from recent negotiations in Afghanistan, in which a former BS&L faculty member and Negotiation Project co-director, MAJ Aram Donigian, applied negotiation skills as a member of the ISAF anti-corruption task force (TF Shafafiyat). The Negotiation Project is a USMA faculty effort to improve the ability of military leaders to negotiate and is an activity within BS&L's West Point Leadership Center. **POC: MAJ Neil Hollenbeck, BSL, x5002.**

Department of Civil and Mechanical Engineering***Completed Events***

1. **ME481 Intrepid Museum Trip Section 24 Sep 12:** A sunny September morning allowed cadets to present multiple aircraft briefings on board the USS Intrepid Sea Air and Space Museum located on Pier 86 in midtown Manhattan. Students prepared presentations that not only covered an aircraft's specifications but also its significance in the evolution of modern aviation design. Cadets were able to see the design choices made by different aircraft manufacturers and appreciate the design tradeoffs they had to make in order to create an aircraft to accomplish a specific mission. Cadets briefed about a wide variety of aircraft ranging from the MiG-17, one of the first jet powered aircraft, to the Lockheed Blackbird capable of flight at Mach 3. POC is MAJ Brian Wade, brian.wade@usma.edu.



22 ME481 Students in front of the Douglas A-4B Skyhawk on board the USS Intrepid

2. **2012 Mechanical Engineering ABET Advisory Board:** Members of the mechanical engineering advisory board held their annual meeting at West Point on Friday, 28 September 2012. The morning session included a welcome by BG Trainor, program and branching update briefings by COL Crawford, initiative updates by Dr. Led Klosky and LTC Bruce Floersheim, and focus group sessions with cadet majors in the class of 2013 at Jefferson Hall. Following lunch in the cadet mess, board members reconvened at Mahan Hall, participated in breakout sessions, and then gathered to provide feedback to COL Crawford on these and other aspects of the ME program. POC: COL Grant Crawford, bobby.crawford@usma.edu.



The 2012 Mechanical Engineering ABET Advisory Board

(front row: Dr. Gunnar Tamm, LTC Bruce Floersheim, MG Harold Greene, Dr. Michele Putko, COL Grant Crawford, Dr. Bill Lewis, Dr. Ed Tezak, Ms. Sue Skemp; back row: SES Bill McArthur, Mr. Bill Cattley, Mr. Andy Keith, Dr. Greg Olsen, LTC Bret Van Poppel, LTC Mike Benson)

3. **Infrastructure and the Operational Art Seminar.** On 24 and 25 Sep, LTC Steve Hart presented a 4-hour seminar on Infrastructure and the Operational Art to the students of the Engineer Captains Career Course. The seminar presented the Component and Assessment Infrastructure Models, basic network theory, and fundamentals of the electrical and water infrastructures in the context of the operational art. This seminar is part of the strategic plan to export the concepts on CE350, Infrastructure Engineering, to wider audiences. LTC Hart is available to present this seminar to any interested audiences. POC is LTC Steven D. Hart, ERDC Engineering Fellow and Director of Infrastructure Studies for the Center for Innovation and Engineering at steven.hart@usma.edu <<mailto:steven.hart@usma.edu>> or 845-938-3084.

4. **USMA Civil Engineering Advisory Board holds 2012 Meeting.** On Friday, 28 Sep 12, the USMA Civil Engineering Advisory Board held its annual meeting in the Department of Civil & Mechanical Engineering Conference Room. This board was established and is maintained as a requirement for the CE Program's ABET accreditation. Twelve distinguished practitioners representing the constituencies of the Civil Engineering Program attended the meeting to assist the CE Program Director, COL Fred Meyer, consider issues of importance. At the beginning of the meeting, BG Trainor, Dean of the Academic Board, visited with the board and thanked them for their service. The board, chaired by LTG (R) Robert Flowers, then received briefings on the Civil Engineering Program, the new cadet branching process being piloted this year, and the current status of the Multi-Purpose Academic Center (MPAC). The board members also met with focus groups of cadets, rotating faculty members and civilian faculty members, and considered issues presented to them by the CE Program Director. As part of the meeting, LTG Bostick, Commander, US Army Corps of Engineers, was the guest speaker at a pizza luncheon hosted by the American Society of Civil Engineers West Point Student Chapter. At the end of the meeting, the advisory board provided feedback to CE Division leadership. POC is COL Fred Meyer, karl.meyer@usma.edu.



The 2012 USMA Civil Engineering Advisory Board. Front row, left to right: Dr. Ted Hromadka, Dr. Jeff Russell, Dr. Terry Hand LTG Tom Bostick, LTG(R) Hank Hatch, MG Gregg Martin, Dr. Brock Barry; Second row, left to right: COL Fred Meyer, LTG(R) Robert Van Antwerp, Mrs. Cheryl Massie, Dr. Terry Holland, Dr. Bud Griffis, LTG(R) Robert Flowers (Chairman) and CPT Matt Knox.



LTG(R) Hank Hatch talks with BG Trainor and Dr. Led Klosky prior to the start of the board meeting.



COL Fred Meyer, MG Gregg Martin and Dr. Terry Holland.



LTG Tom Bostick receives a book from Cadet Aaron Schares at the conclusion of his presentation during the ASCE Student Chapter Pizza Luncheon.