

Dean's Weekly Significant Activities Report

29 August 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



Apprentices Wrap Up Valuable Summer Experience at West Point

This summer, the Network Science Center facilitated several apprenticeships funded by the Army Research Office for both undergraduates and graduate students across many different fields of study.

West Point's Center for the Advancement of Leader Development & Organizational Learning (CALDOL)

2/10 Conducts Leader Challenge Workshop. The CALDOL team—in support of the COIN Center



MTT—trained up facilitators and then executed a Leader Challenge workshop with 2nd Brigade, 10th Mountain Division at Fort Drum, NY on 22 August 2012. Participants included the brigade commander and CSM, the battalion commanders and CSMs, company commanders, staff officers, and other selected leaders from across the brigade.

Cadet PME2 Leader Challenge T3

On 15 August, CALDOL—in partnership with the Simon Center—



officially kicked off PME2 with a Leader Challenge train-the-trainer session for the 144 cadet platoon leaders and their officer mentors.

PME2 will include five Leader Challenges this year (the same as AY 11/12). **Thanks to the 144 officers from across West Point (87 returning from last year) who stepped up to the plate to be platoon mentors.**

Leadership Counts! POC: tony.burgess@usma.edu

Department of Civil and Mechanical Engineering

Completed Events

- 1. Journal Article:** MAJ John Evangelista has an article accepted for publication in the International Journal of Heat and Mass Transfer. The paper, "Thermal and catalytic decomposition of aqueous ethylene glycol mixtures by film boiling" is available online and also available in print later in the year (IJHMT, Volume 55, Issues 23-24, November 2012, pp. 6425-6434). The study demonstrates the possibility to convert hazardous/waste organic liquids (e.g., ethylene glycol or "anti-freeze") to useful fuel products such as syngas (mixture of hydrogen and carbon monoxide) through a film boiling process. The paper details the experimental method that MAJ Evangelista used at the Thermal Sciences Laboratory at Cornell University along with analysis of the findings to prove that this new chemical conversion approach is in fact possible for both pure organics and aqueous mixtures. MAJ Evangelista is currently developing a computational heat and mass transfer model using the finite volume method to further validate the experimental results and to provide a better understanding for future work from a theoretical approach. POC: MAJ John Evangelista, john.evangelista@usma.edu.
- 2. CE Firsties break into the new semester!** CE Firsties taking CE483 Design of Reinforced Concrete & Masonry Structures started the semester off right by making concrete specimens on Lesson 1 and then breaking them on Lesson 2! The early strength test allowed the cadets to see some key properties of concrete as a construction material such as its strength in compression and brittle failure mode, the variability of its performance based on the selected components, mix proportions, water to cementitious material ratio and the importance of quality of production of fresh concrete. POC is MAJ Cullen A. Jones, cullen.jones@usma.edu.



Pictured CE Firsties: CDT Seth Bell '13, CDT Gilbert Enzor '13 and CDT Peter Noto '13 conduct an axial compression test on their concrete cylinder at the start of Lesson 2 on 23 Aug 2012.

- 3. Civil Engineering Division Welcome Back Boat Cruise, 21 August 2012.** The Civil & Military Engineering Club hosted 30 Civil Engineering Cadets and 28 staff, faculty, and Professional Engineers from the local community on a leisurely tour of the Hudson River on Tuesday evening. Cadets were very excited to share their stories about the summer. Many Cadets had participated in AIADs all across the globe, and they were eager to tell others about their great experiences. Local Professional Engineers enjoyed the opportunity to speak with Cadets and learn about the education they are receiving here at USMA. The weather was perfect, and a good time was had by all. POC is MAJ Scott Katalenich at scott.katalenich@usma.edu.



Cadets, instructors, staff, and local professionals engage in conversation over summer experiences and the semester ahead.

- 4. ERDC and CIE brief the JEOC.** On 15 AUG 12, LTC Steven D. Hart, ERDC Engineering Fellow and Dr. Led Klosky, Deputy Director of the Center for Innovation and Engineering conducted a one hour briefing for the Joint Engineer Operations Course (JEOC). The JEOC is a one week long course held at least four times a year at various locations around the country to bring together engineer officers from all services to discuss Joint engineer capabilities, doctrine, and operations. LTC Hart and Dr. Klosky briefed on “Infrastructure and the Operational Art.” Topics covered included the evolution of infrastructure in joint doctrine, the West Point Infrastructure Models (Conceptual, Assessment, Protection/Resilience, and Development) as tools for Mission Command and Design, and the challenges of infrastructure in the deployed environment. The briefing was conducted using Defense Connect Online (DCO), thus eliminating the need for travel funds and travel time. This brief will be repeated on 1 NOV for the next JEOC. Anyone interested in attending the brief through DCO is asked to contact LTC Hart. All that is required to listen is an internet connection. 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 or 845-938-3084.

- 5. ERDC Engineering Fellow visits DTRA for VAPO Design Review.** ON 16 AUG, LTC Hart, ERDC Engineering Fellow, visited the Defense Threat Reduction Agency (DTRA) to participate in a design review for the forthcoming Vulnerability Analysis and Protective Options (VAPO) 6.0 computer program. VAPO allows planners and leaders to assess quickly the effectiveness of various protective options for buildings subjected to blast, vehicle, and WMD attacks. For the past three years VAPO has been a significant component of the CE490 Infrastructure Analysis and Protective Design Course and currently over 60 graduates of this course have taken this skill with them into the Army. LTC Hart's expertise was sought based on his experiences teaching large number of users as well as for finding and identifying programming errors in version 5.0. 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 or 845-938-3084.
- 6. ERDC-Supported Research Commences at West Point.** The fall semester brings the expansion of the ERDC-West Point research partnership. In support of the "Lightweight Systems for Improving Building Envelope Efficiency of Standard Semi-Permanent Theater Structures" project being conducted by the Construction Engineering Research Lab (CERL), West Point will investigate the redesign of the B-Hut using Structural Insulated Panels (SIPs). This project will involve cadets and faculty from five academic programs. Cadets and faculty from Civil and Mechanical Engineering will design the "SIP-Hut", estimate heating and cooling demand, size environmental control units, locate an appropriate test location on West Point, and build both a SIP-Hut and standard B-Hut for testing. Cadets from Systems Engineering will consider applications of the SIP-Hut to disaster relieve scenarios, optimization analysis of SIP-Hut designs, and a "SIP-Hut Factory in a Box" application which could contribute to economic development in a host country in Phase 0 Operations. Participation plans are also being developed for cadets and faculty from Electrical Engineering and Computer Science and Human Factors Engineering. An ERDC technical report will summarize all the work from this project. The project will take place over two years and will expose a wide spectrum of cadets to the ERDC mission as well as deliver a high quality research project to ERDC. Additionally, Cadets Michael Creekmore and Chalernmpat Pariya-ekkasut, under the supervision of Dr. Mlakar, will continue work they began this summer In Vicksburg, MS, at the Geotechnical and Structures Laboratory to expand their technical report "Resistance Testing of U Picket Alternatives for Triple Strand Concertina." Furthermore, 11 cadets and LTC Hart are involved is a semester long project to formulate an Infrastructure Development Model to complement the Infrastructure Component, Assessment, and Protection/Resilience models previously formulated at West Point. These four models are essential tools to help planners and staff "understand, visualize, and describe" the infrastructure variable of the Joint Operating Environment. This work, together with the supporting research on the other models, will be prepared as an ERDC publication titled "Infrastructure and the Operational Art". Points of contact are LTC Steven D. Hart and Dr. Paul Mlakar of ERDC and the Department of Civil and Mechanical Engineering at steven.hart@usma.edu and Paul.F.Mlakar@erdc.dren.mil .

- 7. CE Faculty Members Make Presentation at Energy Network Summit.** COL Fred Meyer and MAJ Scott Katalenich made a presentation entitled "Residential Sustainability: Smart Design Practices" during the Network Science Center's Energy Network Summit on Monday 27 August. Meyer and Katalenich provided details on common problems with existing residential construction then presented smart design practices and examples of the practices applied in some recently constructed homes. Included in the examples were two homes that have achieved a net-zero energy status meaning they produce at least as much power as they use on an annual basis. The presentation also addressed specifics related to the application of solar panels and geothermal systems in the local area. POC is COL Fred Meyer at karl.meyer@usma.edu or x409.

Center for Enhanced Performance (CEP)

CEP's RS103, Information Literacy and Critical Thinking course, in coordination with LTC (R) John Melkon from the West Point Center for the Study of Civil- Military Operations, hosted COL (R) William Martinez as the guest speaker for a lecture on Civil-Military Operations. COL Martinez, currently deputy director for programs at the Center for Civil-Military Relations at the Naval Postgraduate School provided an in-depth presentation on the several issues associated with U.S. civil-military operations around the world. COL Martinez also discussed the engagement and education opportunities for the Naval Postgraduate School's Center for Civil-Military Relations with partnering nations. Over one hundred cadets, faculty and staff attended this lecture which included a thorough question-and-answer period following COL Martinez's lecture. POC for this event is Ms Vetter (x5156).



Network Science Center

For the latest information from the Network Science Center visit our blog, **The Central Node:**
<http://blog.netsciwestpoint.org/>

Apprentices Wrap Up Valuable Summer Experience at West Point

This summer, the NSC facilitated several apprenticeships sponsored by Army Research Office for both undergraduates and graduate students across many different fields of study. The various backgrounds of the apprentices allowed them to be involved in several locations all around West Point. The projects will have a significant impact on West Point, the Army, and the apprentices' future endeavors.

To learn more about the apprentices and the research they conducted this summer please read the post on the Central Node:

<http://blog.netsciwestpoint.org/2012/08/08/summer-apprenticeships/>

or read the Pointer View article:

<http://www.usma.edu/news/SitePages/Apprenticeships%20further%20research%20at%20West%20Point.aspx>



Department of Chemistry and Life Science

1. USMA Chemical Engineers Continue Annual Ring Tradition!!

On Monday 27 August 2012, in a beloved annual chemical engineering program tradition, the Class of the 2013 Chemical Engineering Majors gathered in BHN309 with faculty in order to “Raschig Ring in the New Academic Year”. The team assembled in Bartlett Hall North and proudly displayed their class rings for inspection. Raschig rings are a specific packing material used in some separation processes of which these cadets will learn about this academic year in the CH459, Chemical Engineering Unit Operations Laboratory.



Pictured here

(L to R) Front row: Cadets Letarte, Todd, and Emig

Second Row: MAJ Gifford, CH364 Course Director, Cadets Prior, Nguyen, Sullivan, Hill, Brent, Herrera, Goldstein, Dillard and LTC Bozic, CH459 Course Director.

Third row: COL Robert, Head of the Dept of Chemistry and Life Science, Dr. Biaglow, Chemical Engineering Program Director, Cadets Riley, Moore, Kappes, and Fitzgerald

Department of Physics and Nuclear Engineering

Completed Events

Recognition: on 16 August, Dr. Dan Schultz, Mr. George Geysen, Mr. Bill Lennon, Mr. Keith Schevling, and Mr. Bud Warran were recognized at the General Committee Meeting for excellence during a recent Safety Audit. BG Trainor presented them with the Dean's coin.

Department Open House: On 27 August, the Physics and Nuclear Engineering programs held their open house in the West Point Room, 4th Floor New Science Building. The programs displayed equipment, had an information table, and a place to collect cadets' contact information collection.

Future Events

Research Collaboration: During 11-12 September, LTC Lou Florence and LTC Kraig Sheetz will travel to MIT Lincoln Laboratory in Lexington, MA to meet with Dr. Dan Ripin to collaborate on research opportunities.

Department Major's Meeting: On 13 September, a welcome back meeting will be held for cadets majoring in physics, nuclear engineering, and interdisciplinary science. The majors will be presented with a quick overview of their majors program, and see and hear about the research available from the three Centers of Excellence and individual researchers.

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>

BS&L Cadet Award Ceremony

PL100 Recognition

On August 27th, select members of the Class of 2015 gathered in the BS&L Conference Room and were recognized as part of the BS&L Department's Fall Awards Ceremony. 32 cadets were recognized for

earning an overall grade of “A+” in PL100 during the last academic year, which make up less than 3 percent of the 1,230 cadets who completed the course last year. **POC: LTC Craig Morrow, BSL, x1381.**

Pictured below: PL100 Awardees proudly displaying their PL100 Tab and Certificate following the award ceremony



COL(R) Johnston “Jack” Beach Award/PL100

CDT Lisa Junta, Company E4, Class of 2015 was the recipient of the 2012 COL(R) Johnston “Jack” Beach Award. The award is presented to the cadet who earns the highest grade in the General Psychology for Leaders course each year. COL(R) Beach himself was on hand to present the award and also presented CDT Junta with a copy of his latest book “Leadership in My Rearview Mirror: Lessons from Vietnam, West point, and IBM.” . **POC: LTC Patricia George, BSL, x5589.**

Pictured below: COL(R) Johnston “Jack” Beach presenting CDT Lisa Junta with the 2012 COL(R) Johnston “Jack” Beach Award.



LTC Boyd Harris Award/PL300

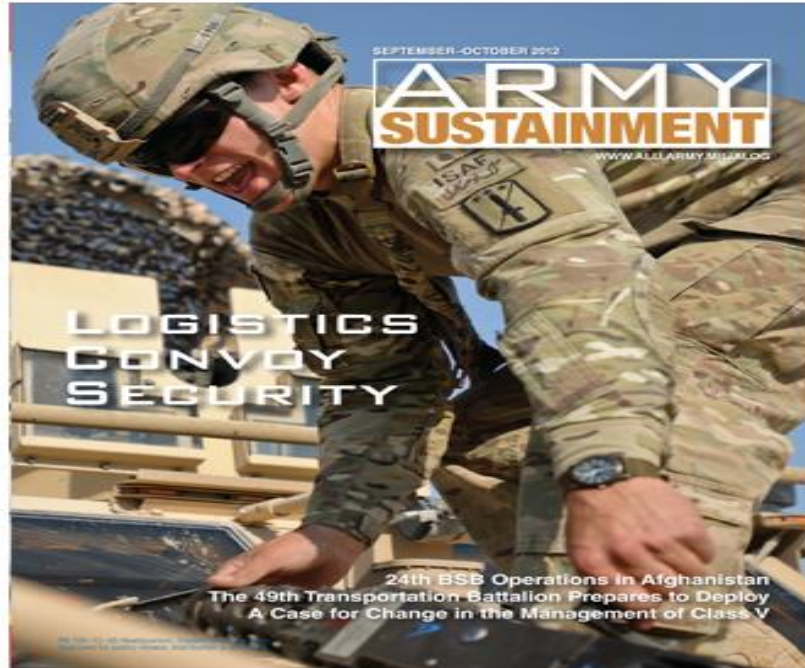
CDT James Raab, Company F4, Class of 2013 was the recipient of the 2012 LTC Boyd Harris Leadership Award. The award is presented to the cadet who earns the highest grade in the PL300, Military Leadership course each year. **POC: LTC Patricia George, BSL, x5589.**

Pictured below: COL Diane Ryan (on left) introducing Cadet Raab as the LTC Boyd Harris Award Recipient

**Faculty Publication**

MAJ Eric McCoy published an article in the September – October 2012 edition of Army Sustainment magazine on the Impact of Logistics on the British Defeat in the Revolutionary War. **POC: MAJ Eric McCoy, BSL, x5022.** Link is below:

http://www.almc.army.mil/alog/The_Impact_Logistics_British_Defeat.html



Faculty Community Support

On the weekend of the 25-26th of August, MAJ Lou Nemece, MAJ Steve Flanagan, MAJ Mike Erwin and 10 cadets raced in a local race called the Storm King 10K in support of Team Red, White and Blue (RWB). MAJ Lou Nemece also ran in the West Point Mom's 5k on Saturday along with 6 cadets in support of Team RWB. **POC: MAJ Lou Nemece, BSL, x0066.**

Pictured below: MAJ Lou Nemece (center) running with his son's in the local West Point Mom's 5K



Pictured below: Team RWB after the Storm King 10K



Department of Foreign Languages

Completed Events

Arabic. Four Arabic SAP cadets completed a pre-session program in Rabat, Morocco at AMIDEAST, and will depart for Ifrane early next week to start coursework at Al Akhwayn University. Four Arabic SAP cadets arrived on Saturday, 25 August in Amman, Jordan and began registration for classes at Al Qasid University. On 29 August, the Arabic SAP cadet to Oman departs for Muscat to begin preparation for classes at the Center for International Learning.

German. German SAP cadets departed on 26 August to both Austria and Germany. The four SAP Austria cadets were met at the airport by Austrian MAJ Lampersberger and will stay in the nation's capitol for three weeks of military language training and cultural orientation. Afterward they will deploy to the training area for a two-week exercise with fellow Austrian cadets. SAP Germany cadets traveled directly to Dresden for linguistic and professional military training at the German Army Officers School. These six cadets will remain at the Officers School until 17 September when they will travel to their respective German Universities in Hamburg and Munich.

Portuguese. Seven cadets from the Brazilian Military Academy returned to Brazil this week. They participated in Cadet Field Training this summer and in Portuguese instruction in the Standard Portuguese

Course for the past two weeks. This week they provided information briefings to their USMA counterparts on Brazil, the Brazilian Army and the Brazilian Military Academy.

Department of Geography and Environmental Engineering

1. CSCMO Sponsored RS103 Guest Lecture. On 23 August, the Center for the Study of Civil-Military Operations (CSCMO) and Professor Laura Vetter of RS103 Information Literacy and Critical Thinking, welcomed COL (RET) William Martinez, USMA '74, Deputy Director, Center for Civil-Military Relations (CCMR), Naval Post-Graduate School (NPS). Mr. Martinez lectured an audience of about 100 cadets and faculty on an "Introduction to Civil-Military Relations". COL Martinez also met with COL Thompson, LTC Lohman and Mr. Melkon to discuss NPS CCMR's desire to support future CSCMO events, facilitate Academy research and host Cadet AIAD opportunities. The point of contact is Mr. John Melkon at john.melkon@usma.edu.



Picture: COL(R) Martinez speaks to cadets about civil-military operations.



Picture: COL(R) Martinez, Mr. John Melkon, Professor Laura Vetter, LTC Andy Lohman, and MAJ Dustin Menhart pose with cadets.

2. Faculty Scholarship. LTC Jeff Starke presented “The Kasissi School Biogas System: USMA Engagement in Uganda” at the USMA Energy Network Summit. The talk highlighted LTC Starke’s research on biogas systems in Germany, the United States (Wisconsin), and Uganda. The presentation discussed the evolution of the bioGRASP model developed with colleagues at the University of Wisconsin at Madison. The application of this model served as the basis for the IAD-A during this past summer to build a biogas system in Uganda. POC is LTC Jeff Starke at jeffrey.starke@usma.edu.

3. Guest Lecture – EV402 (Biochemical Treatment). Dr. Patrick Kiely (Cambrian Innovation) presented a guest lecture to cadets enrolled in EV402 Biochemical Treatment on the use of electrogenic microbes to treat waste water. Specifically, he shared some of his work to treat waste from wineries and applications that NASA is exploring for inclusion on the International Space Station. As part of this presentation, he introduced cadets to the microbial fuel cell kits that the cadets will use in the Environmental Engineering major. POC is LTC Jeff Starke at jeffrey.starke@usma.edu.



Picture: Dr. Patrick Kiely demonstrates the opportunity to turn waste into energy by harnessing microbial communities to power a fan.

4. Environmental Program Welcome Back Barbeque. On the evening of 28 August, the Environmental program faculty hosted a barbeque on Daly Field for the environmental science and environmental engineering majors in the classes of 2013 and 2014. The barbeque served as a chance to welcome back our majors officially to the new academic year and to develop our students professionally and personally. The weather was perfect, the food was great, and 40 of our majors attended and shared some fine EV camaraderie. POC is MAJ Christian Dietz at christian.dietz@usma.edu



Photo: EV majors Kyle Hunt, Collin Wittmeyer, and Mike Chae enjoy the environmental program barbeque while discussing future environmental program opportunities with a yearling (third from the left).

Department of English and Philosophy

Past Events

1. On 24 August, faculty who teach PY201 (Philosophy) hosted a seminar on Designing and Teaching Introduction to Philosophy Courses. DEP faculty members were joined by Dr. Barry Lam (Vassar College), Dr. Jamie Kelly (Vassar College), and Dr. James Snyder (Marist College) for a lively and full afternoon of exchange in the Gray Room of the WP Club. Seminar participants focused on how to improve student learning in introduction to philosophy courses, with a focus on teaching critical thinking, course assignments and texts, and common challenges faced when teaching introduction to philosophy courses. Participants also established plans for future collaboration regarding these and other issues related to teaching philosophy at the undergraduate level.

