PROJECTS DAY
Promoting Academic Excellence
May 2, 2013

westpoint.edu/project
Welcome to West Point!

We are excited you could join us at this year’s Projects Day. Today you will have the opportunity to experience the culmination of months of efforts from our staff, faculty, and most importantly, our cadets.

From its modest beginnings in 2000, Projects Day has continued to grow every year, increasing the collection and variety of projects we showcase this day. While budget uncertainty has reduced some aspects of this Project’s Day, the cadet and student passion for learning remains. At this year’s event, the projects you will see represent the efforts of our cadets from fifteen USMA Departments, twenty-two centers, other service academies, and students from colleges around the United States. Today, we have over 250 presentations, each a transparent display of the intellectual capital of our students.

During this day, Senior class members get to present their senior thesis, capstone projects, or research activities to their fellow cadets, faculty, clients, and to the general public. In some instances, they are even asked to present to groups of guest evaluators. All presentations are scheduled from 7:00 am to 5:00 pm in various academic buildings throughout the post, including the Arvin Cadet Physical Development Center, Taylor Hall, the West Point Club Ballroom, Mahan Hall, Washington Hall, Thayer Hall, Cullum Hall, Jefferson Hall, Bartlett Hall, Building 606 (Law) and Lincoln Hall.

Highlights of today’s events include the capstone design projects, competition projects, poster displays, and numerous presentations on various topics relevant to the Army and our society. This year, cadets will be competing for the fifth annual Scott R. Clark (USMA 1985) Innovation for Soldiers Award. This award is presented to a cadet project that will demonstrate an innovative approach to solving a problem of direct application to the Army.

We welcome all guests who will be attending this year’s event, especially the guest evaluators and judges, students, and faculty from visiting schools. Additionally, we welcome special guests of the Academy and the West Point Association of Graduates.

I invite all of you to walk around, and satisfy your academic curiosity regarding any of these projects as you get to hear our cadets talk about their work. I thank you for coming to West Point today and hope you enjoy the day!

Sincerely,

TIMOTHY E. TRAINOR, Ph.D.
Brigadier General, US Army
Dean of the Academic Board
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The United States Military Academy
Thanks our sponsors who help make Projects Day possible.

82nd Airborne in Afghanistan
Air Force Research Laboratory (AFRL)
American Institute of Steel Construction (AISC)
American Society of Civil Engineers (ASCE)
Armament Research, Development and Engineering Center (ARDEC)
Army Educational Outreach Program (AEOP)
Army Research Institute (ARI)
Army Research Laboratory (ARL)
Army Research Office (ARO)
Asia Pacific Civil Military Centre of Excellence
Assistant Chief of Staff for Installation Management
ASA-Installations, Energy & Environment
AT&T
Audia Group (Washington Penn Plastics Co.)
Aviation Missile Research Development Center
BAE Systems
Battelle
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Benet Labs
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Lockheed Martin
Lynde and Harry Bradley Foundation
MIT Lincoln Labs
Natick Soldier Research Development and Engineering Center (SRDEC)
National Association of Women Lawyers (NAWL)
National Defense Education Program (NDEP)
Naval Post Graduate School
National Science Center (NSC)
Network Battle Lab
Occupations, Inc.
Office of the Secretary of Defense
Office of the Under Secretary of Defense for Personnel and Readiness (OSD P&R)
OSD Cost Assessment and Program Evaluation (OSD CAPE)
PEO Ground Combat Systems
PEO Soldier
PM-Individual Weapons
Program Executive Office (PEO) Ammunition, Picatinny Arsenal
Pyrotechnics Technology and Prototyping Division, Pyrotechnics Research, Development & Pilot Plant Branch, at Picatinny Arsenal
Rapid Equipping Force (REF)
Raytheon BBN
Research and Engineering
Research Directorate Office of the Assistant Secretary of Defense for
Space and Missile Defense Center-Future Warfare Center
Space and Missile Defense Command (SMDC)
SpringActive, Inc.
Stearns Weaver Miller Weissler Alhadeff & Sitterson, P.A.
STEM Development
The Construction Engineering Research Lab (CERL)
The Office of the Secretary of Defense (Operational Readiness and Safety)
The U.S. Army Corps of Engineers Research and Development Center Environmental Lab. (ERDC-EL)
U.S. Army Rapid Equipping Force
United States Army Corps of Engineers (USACE)
United States Army Installation Management Command (IMCOM)
United States Army Materiel Systems Analysis Activity
US Department of Energy
United States Geospatial Intelligence Foundation
U.S. Missile Defense Agency
U.S. Army RDECOM
U.S. Army J7
U.S. Army Public Health Command
USACE Engineer Research and Development Center
Veterans Affairs
Walter Reed Army Institute of Research (WRIAR)
Warrior Transition Unit Cadre
Washington Penn Plastics
West Point Association of Graduates
Yuengling & Son, Inc.
Presentations will be held in the following locations by the Departments and Centers listed below:

Locations:
BH: Bartlett Hall
BHN: Bartlett Hall North
MH: Mahan Hall
TH: Thayer Hall
WH: Washington Hall
LH: Lincoln Hall
LHB: Lincoln Hall Basement
WPCB: West Point Club Ballroom
LAW: Building 606
LAW CONF, LAW LIB: 4th floor of BLDG 606
(Admissions)
ARVIN: Arvin Cadet Physical Development Center
WH Benavidez Room: 5th Floor Washington Hall, (DMI Hallway)
TH 2nd Floor: 2nd Floor Thayer Hall, (Math Hallway)
JH: Jefferson Hall (Cadet Library)

Departments:
BS&L: Behavioral Sciences and Leadership
C&LS: Chemistry and Life Sciences
CME: Civil and Mechanical Engineering
CPDE: Center for Physical Development Education
EECS: Electrical Engineering and Computer Sciences
DEP: English and Philosophy
DFL: Foreign Languages
GENE: Geography and Environmental Engineering
HIST: History
LAW: Law
DMI: Military Instruction
MATH: Mathematical Sciences
NSC: Network Science Center
PANE: Physics and Nuclear Engineering
SOSH: Social Sciences
DSE: Systems Engineering
DSS: Defense and Strategic Studies

Special Thanks to the following staff and faculty that made Projects Day possible:

Academy Research Committee Projects Day Subcommittee:
COL Dan McCarthy DSE (Chair), Ms. Cathy Bale CME, LTC Dave Borowicz CME,
LTC Lou Florence PANE, and Dr. J. Ken Wickiser C&LS
More events occurring during Projects Day

Intellectual Property and Patent Processing
Location: Jefferson Hall, Room 131 (COL Graham's office)

Date/Time: Projects, Thursday, 2 May 2013 0900-1600. Researchers should review the IP/Patent info on this website and complete as much of the paperwork as possible prior to meeting with the ARDEC team:

http://www.westpoint.edu/research

CALDOL
Located in the tower rising off the southeast corner of Thayer Hall (the roof parking lot), CALDOL is a small, cutting-edge innovation center dedicated to connecting West Point cadets, staff, and faculty to the current experiences of platoon leaders and each other through dynamic learning experiences and products. The CALDOL team designed and continues to lead the Company Command and Platoon Leader online professional forums, which connect 20,000 cadets and officers with each other in conversation. Stop by the tower during Project's Day and learn more about CALDOL, with special emphasis on the Leader Challenge approach to leader development—which is one way that we are connecting cadets and faculty to the most challenging experiences that current platoon leaders are having in combat. Cadet feedback on the Leader Challenge: "This was the most real-life developmental experience I have had so far at USMA. No other leadership course or PME class has been as clearly applicable to me and my future as the leader-challenge series. I am better prepared to enter the Army." We look forward to seeing you on Project's Day!
–Colonel Tony Burgess

A Special Welcome to Students from:
West Point Middle School
James I. O’Neill High School
United States Military Academy Preparatory School
The Scott R. Clark Innovation Award

The Scott R. Clark (USMA 1985) Innovation for Soldiers Award is given to the project that best demonstrates an innovative approach to solving a problem of direct application to the soldier and to the Army. The donor states, “This gift is to encourage cadets to demonstrate for soldiers, innovations which can benefit soldiers.” A single project has been nominated to compete for this year’s Clark award from each Academic Department and Research Center.

The Academic Research Council (ARC) will select 3-4 of the nominated projects to be judged for the Clark Award on Projects Day.

Projects are evaluated based on the following criteria:
- Impact of the innovation to the soldier
- Scope of the Innovation (number of soldiers impacted)
- Significance of the innovation (evolutionary vs. revolutionary)
- Impact of the innovation to the Army

The Projects Day panel that will select a winner is comprised of experienced soldiers from across the academy, including USCC personnel, Wounded Warrior Transition Team personnel and others.
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<thead>
<tr>
<th>Number</th>
<th>Location</th>
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<td>1</td>
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<td>Herbert Hall</td>
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LEGEND:

- A. Patton Monument
- B. Eisenhower Monument
- C. Washington Monument
- D. MacArthur Monument
- E. Thayer Monument
- F. Battle Monument
- G. Sedgwick Monument
- H. Kosciuszko/Fort Clinton
- I. The American Soldier Statue
- J. Air Cadet Memorial
- K. Memorial to the Army Athlete
- L. Southeast Asia Memorial

HIGHLAND FALLS MAIN STREET - MANY FINE EATING ESTABLISHMENTS

- THAYER GATE
- THAYER HOTEL
- WP MUSEUM
- HERBERT HALL - ASSOCIATION OF GRADUATES
- GRANT HALL
- WEST POINT CLUB
Note: Areas in yellow are off-limits to unescorted visitors.
## Department of Behavioral Sciences and Leadership

Appreciation and great thanks goes to the BS&L Projects Day Sponsors:

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<tr>
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<td>Army Research Institute (ARI)</td>
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<tr>
<td>US Army Public Health Command</td>
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</table>

### All Day TH258

Multi-player immersive training simulation for mech infantry contingency operations in SW Asia

**Epsiych Class of 2013 Design Team**

- COL James Ness; MAJ Daniel Kidd; Mr Victor Castro

### Poster vic TH268 (BSL Hallway)

Multi-player immersive training simulation for mech infantry contingency operations in SW Asia

**Epsiych Class of 2013 Design Team**

- COL James Ness; MAJ Daniel Kidd; Mr Victor Castro

### Poster vic TH268 (BSL Hallway)

Anthropometric and Biomechanical Assessment of Mess Hall Injuries (JACK modeling)

**Paulin, Karleen**

- Mr Kent Webb (Industrial Hygienist); Mr Richard Kozycki (ARL)

### Poster vic TH268 (BSL Hallway)

Relationship between level of simulated hearing loss and performance in Paint Ball scenarios

**Hatch, Jonathan**

- Mr Ben Scheffield (USA Public Health Command); Dr Douglas Brungart (USA Public Health Command)

### Poster vic TH268 (BSL Hallway)

Simulated threshold shift from IED: Effects on target acquisition (Engagements Skills Trainer)

**Breeden, Jared**

- LTC Michael Shannon (DTRA)

### Poster vic TH268 (BSL Hallway)

DTRA ISIS Project - Modeling Workload and Work Space requirements (IMPRINT/JACK modeling)

**Brake, Mark**

- LTC Michael Shannon (DTRA)

### Poster vic TH268 (BSL Hallway)

DTRA ISIS project - Vigilance monitoring in the ISIS system controlling for cognitive workload

**Brake, Mark**

- LTC Michael Shannon (DTRA)

### Poster vic TH268 (BSL Hallway)

Simulation Operations - mediated practice in flight simulations training

**Despang, Adam**

- Dr Cheryl Johnson (ARI)

### Poster vic TH268 (BSL Hallway)

Changes in self-report of depression as a functions of seasonal changes in p11

**Warner, Nicki**

- Dr. Paul Greengard (Rockefeller University); US Army Medical Research and Materiel Command

### Poster vic TH268 (BSL Hallway)

SIP-Hut: developing living space/ configuration for expditionary bases (JACK analysis and modeling)

**Goodin, Jonathan**

- LTC Steven Hart (ERDC-CERL)

### Poster vic TH268 (BSL Hallway)

Training Efficiently using EEG mediated feedback

**Philips, Alicia**

- Dr. Elkhonon Goldberg (NYU, Langone Medical Center)

### Poster vic TH268 (BSL Hallway)

Cognitive Cartography Tools: Negotiations Mission Rehearsal Tool for Embedded Training Teams

**3BCT 10th Mountain; Ms Julia Kim (Institute for Creative Technology, USC); Mr. Richard DiNinni (Institute for Creative Technology, USC)**

- Philips, Alicia
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<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Title</th>
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<td>0900-1200</td>
<td>TH268</td>
<td>Exploring an African-American Studies Course at West Point</td>
<td>Dr. Morten Ender</td>
<td>Easterling, Geoffrey</td>
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<td>0900-1200</td>
<td>TH268</td>
<td>Hooking Up Attitudes and Behavior among West Point Cadet</td>
<td>Dr. Morten Ender</td>
<td>Carolyn, &quot;Nina&quot; Fiore</td>
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<tr>
<td>0900-1200</td>
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<td>Social Pressures, Institutional Integration, and Life Satisfaction within Higher</td>
<td>Dr. Bruce Kieth</td>
<td>Arguello, Shane</td>
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<td>0900-1200</td>
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<td>Educational Context</td>
<td>Dr. Bruce Kieth</td>
<td>Arguello, Shane</td>
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<td>0900-0945</td>
<td>TH272</td>
<td>The Effectiveness of Cadet Relaxation</td>
<td>Dr. Marjorie Carroll</td>
<td>Jester, Daniel</td>
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<td>1000-1045</td>
<td>TH272</td>
<td>Winning from Within: Performance Psychology and its Applications in Athletics</td>
<td>Dr Marjorie Carroll</td>
<td>Snoad, Nicholas</td>
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<td>1100-1145</td>
<td>TH272</td>
<td>Metacognitive Awareness of Physical Ability</td>
<td>Dr Marjorie Carroll</td>
<td>Webber, Kandace</td>
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<td>1100-1145</td>
<td>TH272</td>
<td>Episodic Recall for Scenes in a Military Population</td>
<td>Dr. Marjorie Carroll</td>
<td>Clark, James</td>
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<td>1300-1500</td>
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<td>The Wounds of War: How PTSD and Amputation Affects Leader Ratings</td>
<td>Dr. Marjorie Carroll</td>
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<td>1300-1500</td>
<td>TH272</td>
<td>Exploring the Faces of Leadership: The Effect Of Sexual Dimorphism On Leader Perception</td>
<td>Dr. Marjorie Carroll</td>
<td>Webber, Kandace</td>
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<td>1300-1500</td>
<td>TH272</td>
<td>Duration Between Eye Blinks (DBEB), Vocal Tone, and Electroencephalography (EEG) as Indicators of Physical and Cognitive Stress</td>
<td>Dr. Marjorie Carroll</td>
<td>Sattler, Joseph</td>
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<td>1300-1500</td>
<td>TH272</td>
<td>Investigating The Criterion Validity Of A Self-Report Scale Of Empathy</td>
<td>Dr Marjorie Carroll</td>
<td>Darling, Amanda</td>
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Department of Chemistry and Life Sciences

Appreciation and great thanks goes to the C&LS Projects Day Sponsors:
- West Point Association of Graduates (AOG)
- Army Research Office (ARO)
- Army Research Laboratory (ARL)
- Defense Threat Reduction Agency (DTRA)
- Armament Research, Development and Engineering Center (ARDEC)
- Pyrotechnics Technology and Prototyping Division, Pyrotechnics Research, Development & Pilot Plant Branch, at Picatinny Arsenal Benet Labs
- Edgewood Chemical and Biological Center (ECBC)
- The U.S. Army Corps of Engineers Research and Development Center Environmental Lab. (ERDC-EL)
- The Construction Engineering Research Lab (CERL)
- Program Executive Office (PEO) Ammunition, Picatinny Arsenal
- Walter Reed Army Institute of Research (WRIAR)
- Washington Penn Plastics
- Telemedicine & Advanced Technology Research Center (TATRC)
- Defense Medical Research and Development Program (DMRDP)

All poster sessions will be held from 0900-1100

**Electrochemical Detection of 2-Amino-4,6-dinitrotoluene and 4-Amino-2,6-dinitrotoluene**
- Bozic, Robert G., LTC, PhD
- Beyea, Aaron, CDT
- Bowers, Zach, CDT
- Ng, Lauren, CDT

**Kicking Mule Brewing Company Beer**
- Bozic, Robert G., LTC, PhD
- Letarte, Matthew, CDT
- Prior, Dan, CDT
- Todd, John, CDT

**A West Point Pinot Noir**
- Bozic, Robert G., LTC, PhD
- Lacey, Matt, CDT
- Bozic, Robert G., LTC, PhD

**West Point Chocolate Factory**
- Bozic, Robert G., LTC, PhD
- Hill, Amy, CDT
- Arrowchis, David, CDT
- Bozic, Robert G., LTC, PhD

**Microbial Fuel Cells (MFCs) Effect of Electron Mediation on Alcohol Production in Baker’s & White Wine Yeast**
- Bozic, Robert G., LTC, PhD
- Army Research Laboratory
- Houston, Erik, CDT
- Bohnhoff, John, CDT
- Bann, Seamus, CDT

**Modeling the Circulatory System by considering the effects of Heart Rate Variability and Fluid Pressure Dynamics**
- Brechue, William, PhD
- McCormick, Mark, CDT

**DNA-Templated 3-Dimensional Nano-Porous Current Collectors for Energy Storage Applications**
- Burpo, F. John, LTC, ScD
- Army Research Office, Grand REF Challenge
- Cassidy, Kelly, CDT
- Carlson, Ashleigh, CDT
- Dillard, Joshua, CDT

**Transition Metal Salt-Templated Square Nanotubes**
- Burpo, F. John, LTC, ScD
- Army Research Office
- Brown, David, CDT
- Levy, Isaiah, DCT
- Pearce, Logan, CDT

**IAD(A): Analysis of Adaptive Camouflage Techniques of Cuttlefish using Hyperspectral Imagery**
- Fell, Nicholas, PhD
- Army Research Office
- Kaicher, Jonathan, CDT
- Wickiser, JK, PhD
- Pearman, Winder, PhD
- Browning, Catherine, CDT

**Tracking Antibiotic Action with Hyperspectral Imaging**
- Fell, Nicholas, PhD
- Army Research Office
- Kaicher, Jonathan, CDT
- Jude, Joseph Winder, PhD
- Cal, Charles, CDT

**Characterization of the Thermal Degradation of VX on Operationally Relevant Materials**
- Kowalski, Eileen M., PhD
- Edgewood Chemical Biological Center
- Ast, Patricia, CDT
- Banning, Gregory, CDT

**Effects of Butanoic Acid on Insects**
- Labare, Michael, PhD
- DTRA
- Hunkler, Kiley, CDT
- Cummings, Danielle, CDT
- Wiedmann, Marion, CDT

**Effects of short chain fatty acids on the release of dipicolinic acid from Bacillus anthracis endospores**
- Labare, Michael, PhD
- DTRA
- Hunkler, Kiley, CDT
- Cummings, Danielle, CDT
- Wiedmann, Marion, CDT
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<th>Author(s)</th>
<th>Sponsor(s)</th>
<th>Mentor(s)</th>
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<td>Design and Optimization of a Self-Contained, Portable, Waste to Energy Gasification System</td>
<td>Lachance, Russell, COL, PhD RDECOM, SERDP</td>
<td>Prior, Daniel, CDT</td>
<td>Fitzgerald, John, PhD</td>
</tr>
<tr>
<td>Design and Testing of a Waste to Energy Synthesis Gas Scrubbing System</td>
<td>Lachance, Russell, COL, PhD RDECOM, SERDP</td>
<td>Herrera, Floren, CDT</td>
<td>Tobergte, Louis, CDT, Niemic, Jessica, CDT</td>
</tr>
<tr>
<td>Modeling of a Waste to Energy Synthesis Gas Scrubbing System</td>
<td>Lachance, Russell, COL, PhD RDECOM, SERDP</td>
<td>Todd, John, PhD</td>
<td>Kowal, John, Waage, Dave</td>
</tr>
<tr>
<td>Modeling and Simulation of a Waste to Energy Reactions to produce Synthesis Gas</td>
<td>Lachance, Russell, COL, PhD RDECOM, SERDP</td>
<td>Walker, Robert, CDT</td>
<td>Kowal, John, Waage, Dave</td>
</tr>
<tr>
<td>Development of Instrumental Techniques to Support Waste to Energy Synthesis Gas System Testing and Analysis</td>
<td>Lachance, Russell, COL, PhD RDECOM, SERDP</td>
<td>Parra, Alex, PhD</td>
<td>Kowal, John, Waage, Dave</td>
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Department of Civil and Mechanical Engineering

The West Point Center for Innovation and Engineering (CIE), the West Point Center for STEM Education (CSE) and the Department of Civil and Mechanical Engineering (D/CME) would like to thank each of its partners and affiliates for offering excellent enhancement to cadet educational opportunities!

Air Force Research Laboratory (AFRL)  Entergy
American Institute of Steel Construction (AISC)  General Electric (GE)
American Society of Civil Engineers (ASCE)  General Dynamics Land Systems (GDLS)
Armaments Research Development and Engineering Center (ARDEC)  Keller Army Community Hospital (KACH)
Army Educational Outreach Program (AEOP)  Natick Soldier Research Development and Engineering Center (SRDEC)
Army Research Laboratory (ARL)  National Defense Education Program (NDEP)
Armaments Research Development and Engineering Center (ARDEC)  National Science Center (NSC)
Boeing Defense, Space & Security  Occupations, Inc.
Defense Advanced Research Projects Agency (DARPA)  PEO Soldier
Rapid Equipping Force (REF)

0800-0900  TH 144  West Point Exo-skeleton
CDTs Justin Edell, Richard Garcia, John Hurdt, Daniel Kim, Ian McGee, Raymond Pottebaum, Jean Roman Rodriguez

0730-0755  MH 223  Steel Bridge Team
CDTs Richard Austrong, Seth Bell, Kyle Kilroy, Trevor Knowles, Chalermpat Pariya-Ekkasut

0800-0900  MH B5  40-mm Grenade Non-Lethal Obscurant
CDTs Stephen Hart, Ian Moss, Christopher Retsch, Paige Youngerman

0800-0900  MH 205  Kiowa Warrior Ammunition Container Re-design
CDTs Timothy Bowers, Clifford Crofford, Matthew Gallup

0805-0830  MH 223  Concrete Canoe Team
CDTs James McLoughlin, Mark Owens, Alex Pinigis, Nate Ryba, Aaron Schar

0830-1130  MH 415  MEDEVAC / SAR 2045 Design
CDTs Fredrick Bullard, Vincent Franchino, Douglas Rosendahl, Ryan Webb, James Whittington

0840-0905  MH223  Scoutmaster Green Building
CDTs Justin Adkins, Paul Rogers

0900-1000  TH 144  SAE Mini-Baja Competition
CDTs Philip Daichendt, Anthony Dibiase, Jennifer Dittmer, Asael Flores, Jeffrey Ginther, Shane Lowe, William Mengen, Michael Sheahan, James Tyler, Michael Wall

0900-1000  MH B5  Liquid Spray X-Ray Design
CDTs Andrew Dugan, Benjamin Miller, Alexander Sagues

0900-1000  MH 205  Monarch UAV
CDTs Christopher Dana, Michael Nouailletas, Lucas Poppe, Matthew Thielen

0915-0940  MH 223  Micro-Power Grids in Infrastructure
CDT Aaron Schares

0950-1015  MH223  U-Shaped Picket Alternative
CDT Michael Creekmore

1000-1100  TH 144  SAE Design, Build, Fly (DBF) Competition
CDTs Mitchell Acosta, Jack Balstad, John Barnes, John Barr, John Buckley, Andrew Eck, Erik Najera, Bradley Soviek, Nicholas Thurston, Bryan Wilson

1000-1100  MH B5  Stryker Rear Air Guard Hatch Re-Design
CDTs Benjamin Clemente, Cecil Frink, William Moffitt, Bruce Rush

1000-1100  MH 205  Bio-Energy Harvester
CDTs Matthew Collins, Ty Gambill, Shane Greaves
Department of Civil and Mechanical Engineering

1025-1050  MH223  Bio-Energy
CDT Patrick Wilver

1100-1200  TH 144  Lightweight Universal Gap Crossing Device
CDTs Killian Burns, Sungi Cho, Steven Davidson, Max Saurwein

1100-1200  MH B5  MISH: Disability Assistive Device
CDTs Thomas Devane, Gregory Fearnley, Justin Suh

1100-1200  MH 205  Deployed B-Hut Re-design
CDTs Martin Baker, Colin Hennessy, Adam Leemans, Ethan Miller, Kurt Musser, Brian Severson

1100-1125  MH223  Statistical Analysis of Snow Loads
CDT Abbey McCauley

1135-1200  MH223  AEC Global
CDT Danielle Peterson

1300-1400  MH B5  PEO Soldier: Mobile Fire Suppression System
CDTs Brandon Clumpner, Paul Johnson, Ethan Naylor

1300-1400  MH 205  4-Minute Mile Running Enhancement
CDTs Andrew Joliat, William Reasonover, Sean Roemer

1300-1325  MH223  CE490 Development
CDTS Aaron Lee, Nathan McVey

1335-1400  MH223  LEED Credentialing
CDTs Ethan Dewart, Robert Hume

1410-1425  MH223  REF GRAND CHALLENGE—Water Cooling System
CDTs Ryan Frykman, Patrick Heeter, Joshua Harper, Brett Krueger

1430-1445  MH223  REF GRAND CHALLENGE—Power Patch
CDTs Ashli Carlson, Kelley Cassidy, David Brown, Joshua Dillard, Isaiah Levy, Samuel Lowell, Logan Pearce, Andrew Pribble

1450-1505  MH223  REF GRAND CHALLENGE—40 mm Grenade Non-Lethal Obscurant
CDTs Steve Hart, Ian Moss, Chris Retsch, Paige Youngerman

1510-1525  MH223  REF GRAND CHALLENGE—B Hut/SIP Hut
CDTs Dan Foky, Paul Rogers

1530-1545  MH223  REF GRAND CHALLENGE—Gap Crossing
CDTs Killian Burns, Sungi Cho, Steve Davidson, Max Sauerwein
Department of Electrical Engineering and Computer Science

Appreciation and great thanks goes to the EECS Projects Day Sponsors:

PEO Ground Combat Systems
PEO Ammunition
Research Directorate Office of the Assistant Secretary of Defense for
Research and Engineering
Office of the Chief Scientist
Grand Idea Studio, Inc.
Feith Systems, Inc.
Network Battle Lab
Defense Threat Reduction Agency

All Day WPCB ARAMIS: Radio Excitation and Proof of Concept
CDT Chris Bennett, CDT Vince Bramble, CDT Craig Cowell, CDT Steven Halsmer, CDT Cole Holland, CDT Sara Sbarbaro, CDT Ian Young

All Day WPCB Project Athena
CDT Kyle Kiriyama, CDT Tony Kirkland, CDT Larisa Tudor

All Day WPCB Android-Controlled Vulnerable Aware Robot Swarm (AVARS)
CDT Sean Coffey, CDT Nolan Miles, CDT Stephen Rogacki, CDT Isaiah Salsman

All Day WPCB Course Assistant for Visually Impaired Army Rowers (CAVIAR)
CDT Janelle Runion, CDT Vince Schuele, CDT Rachel Pauley, CDT Christian Grado

All Day WPCB DynaMA
CDT Gregory Ecklin, CDT Ian Garret, CDT Erik Hunstad, CDT Robert McKorrow, CDT Gregory Blackburn, CDT Jonathan Hudson, CDT Cory Kirk

All Day WPCB Intelligent Ground Vehicle Competition (IGVC)
CDT Stuart Baker, CDT Wei-Hung Chen, CDT David Choe, CDT Nick Fettinger, CDT Brett Reichert, CDT Kyle Yoder

All Day WPCB Joint Cooperative Unmanned System Initiative (JCUSI)
CDT Daniel Kennedy, CDT Barton Steffy, CDT Matthew Hall, CDT David Geer, CDT Patrick Smith

All Day WPCB Laser Light Show 3
CDT David Covell, CDT Brian Wright, CDT Robert Parker, CDT Christopher Kelley, CDT Ella Ellis

All Day WPCB Land Navigation and Orienteering SoldierTracker (LOST)
CDT David Collins, CDT Becky Malone, CDT Quinton Cottle, CDT Antonia Allen, CDT Alyssa Tran

All Day WPCB Modular Autonomous Arial Retransmission Unit (MAARU)
CDT Carl Johnson, CDT John Costello, CDT Jeremy Morris, CDT Mohammed Ben-Othman

All Day WPCB Mobile Application Security Analysis (MASA)
CDT Michael Anderson, CDT Michael DeVens, CDT James Lecraw, CDT Alan Lutterman, CDT Cody Scutta

All Day WPCB Organization and Person of Interest Identifier and Selector (OPIIS)
CDT Diamond Rorie, CDT Garrett Schubert

All Day WPCB Phasor Measurement Unit Wide Area Measurement System (PMU WAMS)
CDT Tyler LeRoy, CDT Ethan Miller, CDT Colin Chapman, CDT Phelan Guan, CDT Daniel Park

All Day WPCB PORTHOS
CDT Steve Billington, CDT Jordyne Hayden, CDT Jason Merten, CDT Brian Tumolillo

All Day WPCB Shelter Wall Integrity Function Test (SWIFT)
CDT Justin Hyder, CDT Brian Severson, CDT Brad Strimel

All Day WPCB Nett Warrior System (Tactical 4G/LTE)
CDT Arnold Chung, CDT Greg Tarancon, CDT Nick Wright, CDT Stephen Peck, CDT Evan Danahy, CDT Frank Allen

All Day WPCB Chemical Detection with Microresonantors
CDT David Covell, CDT Matthew Letarte

All Day WPCB All-Optical Wave Division Demultiplexing in Silicon Microrings
CDT Justin Hyder, CDT Rachel Pauley

All Day WPCB Towards Identifying Photonic Mechanisms of Seasonal Affective Disorder
CDT Janelle Runion, CDT John Marinelli

All Day WPCB All Day
Department of English and Philosophy

0900-1500 TH348 Literature and Philosophy Thesis Defenses
APL thesis writers will present their research to a forum of students and professors.

Eileen Deegan (0900-1000)
“An Exploration of Marriage and Prostitution in Daniel Defoe’s Moll Flanders and William Hogarth’s A Harlot’s Progress”

Emily McCarthy (0900-1000)
“A Fourth Guinea: Virginia Woolf on War and Female Soldiers”

Marshall Moten (0900-1000)
“Little Worlds and the Art of Rewriting History”

Stephanie Wangeman (1100-1200)
“Determinism and Free Will: Achieving Free Will through Principled Reason”

Patrick Benevento (1300-1400)
“Overcoming Akrasia”

Eric Brauning (1400-1500)
“A Renewed Look Into Mind-Brain Dualism”

1000-1145 Robinson Auditorium Academy Idol
"Academy Idol" 2013 will feature two separate theatrical competitions. First, eight plebe students will present monologues from a variety of Shakespeare plays; a panel of judges will award prizes for first, second, and third place. Then, in the spirit of the Athenian City Dionysia festival, three separate groups of students will present Sophoclean choral odes. The audience will award a prize for the best choral recitation.

1300-1500 TH347 Art of War Presentations
Students in COL Michael Stoneham’s Art of War elective (EP374) will present interpretive projects on the art of war. These projects will involve sensory-based creative engagements with the art and history of World War I. Each student will speak for 8 to 10 minutes with 5 minutes of Q&A after each presentation.

Participants: Stephanie Hasenfus, Patrick Monfort, Caitlin Gamble, Tyler Lamb, Jeffrey Ferebee, Evan Leake.

1500-1645 Robinson Auditorium As You Like It
Students in COL Scott Krawczyk and LTC David Harper’s Shakespeare elective (EP394) will stage a full production of William Shakespeare’s pastoral comedy As You Like It. This romantic comedy, set in the idyllic Forest of Arden, tells a story of divided lovers, usurping noblemen, mistaken identities, and redemptive transformations. It also emphasizes Shakespeare’s rural roots and his fondness for the pastoral freedoms of the countryside.
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<th>Time</th>
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<th>Authors</th>
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<td>0800</td>
<td>WH 4303</td>
<td>Mitigating the Regional Influence of al-Qaida in the Islamic Maghreb: An Analysis of the Group’s Rhetoric in the Wake of the Arab Spring</td>
<td>Jack Conway, Carl Kenney, Ryan Montgomery</td>
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<tr>
<td>0900</td>
<td>WH 4303</td>
<td>Countering Violent Extremism in North Africa: Case Studies of Words and Images from the September 11, 2012 Riots in Egypt and Libya</td>
<td>Pat McMillan, Tommy Ryan, Anna Simmers</td>
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<tr>
<td>1000</td>
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<td>Nationalism and Cultural Identity in Two Cases in the Middle East: The Kurdish Nation and the State of Lebanon</td>
<td>Ross Boston, Charles Houchin</td>
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<td>1100</td>
<td>WH 4303</td>
<td>Hamas and Fatah: The Dichotomy of a Radical Party in Office</td>
<td>Brendan Richard, Andrew Smith</td>
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<td>1300</td>
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<td>Arab Spring and the Popular Discourse: How the Language in Egypt, Libya, and Tunisia Shapes Ongoing Outcomes</td>
<td>Craig Champlin, Angela Vargas</td>
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<td>1400</td>
<td>WH 4303</td>
<td>Advancing an Integrated Ballistic Missile Defense System in Gulf Cooperation Council Nations: An Analysis of Barriers to System Integration</td>
<td>Langston Clarke, Hamid Nasir, Giancarlo Salazar</td>
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<td>What Energy Independence Means for China With Respect to the International Community, Political Legitimacy, and Socio-Economic Status</td>
<td>Ruby Ahn, Kevin Kusumoto, Jessica Williams</td>
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<td>0900</td>
<td>WH 4304</td>
<td>Corruption: China’s Achilles Heel and its Effects on US-Sino Military Relations</td>
<td>Duncan Aylor, Timothy Chen, Austin Keeton</td>
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<td>WH 4304</td>
<td>Chinese Language Acquisition, Maintenance, and Dialects: Ways to Improve the West Point Chinese Mandarin Program</td>
<td>Eric Fan, Daniel Lee, Steven McCrorey</td>
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<td>The People’s Republic of China’s Use of Propaganda in Film, Media, and Music to Foster Nationalism, Maintain Legitimacy, and Support Policy</td>
<td>Bill Owens, Yeeun Youn, Lianhao Zhou</td>
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<td>1300</td>
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<td>The Evolution of China’s Global Interactions from Before the 100 Years of Humiliation to the Modern Day</td>
<td>Alexander Cheng, Danielle Myers, Gabrielle Perez</td>
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<td>WH 4305</td>
<td>France’s Opposition to Turkish EU Accession: How Domestic Politics Influence Foreign Policy</td>
<td>Christian Botero, Hunter Baudoinjaux, Matthew Jedras</td>
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<td>1000</td>
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<td>A Multi-Faceted Approach Enabling Mali to Develop a Self-Sustaining Nation</td>
<td>Noah Currie, David Wroblicki, Thomas Eucker</td>
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<td>1100</td>
<td>WH 4305</td>
<td>What Works? French Military Foreign Policy In Sub Saharan Africa</td>
<td>Michael Wilke, William Powell, John Miele</td>
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<td>1000</td>
<td>WH 4003- Red Reeder Room</td>
<td>Interculturelle Kompetenz: The German Perspective on Language, Culture, and Regional Training for the Junior Officer Corps</td>
<td>Joseph Curtin, Caleb Magnuson, Peter Tyree</td>
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<td>0900</td>
<td>WH 5006</td>
<td>Copa do Mundo 2014: Implicações para o Brasil (World Cup 2014: Implications for Brazil)</td>
<td>Joshua Bounds, Wallace R. Caradine, Daniel Dougherty, Jordan Ewonus, Patrick Finnegan</td>
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<td>1000</td>
<td>WH 5006</td>
<td>Buscando o ouro: Uma análise dos Jogos Olímpicos de 2016 (Going for Gold: An Analysis of the 2016 Olympic Games)</td>
<td>Patricia Fors, Raeseana Phelps, Babatunde Mustapha, John Moon, Rafael Herrera</td>
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<td>1100</td>
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<td>Em busca da experiência estrangeira ideal: Pensamentos no melhoramento dos programas de estudos estrangeiros da USMA (In Search of the Ideal Foreign Experience: Thoughts on the Improvement of the Foreign Studies Programs at USMA)</td>
<td>Naomi Fuhrman, Kevan O’Rear, Cody Waterman, Tyler Woodhouse</td>
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<td>Should the US Pursue Democratization in Belarus?</td>
<td>Michael Burke, Whitney Davis, Steve Perry, Owen Stratton, John Uvina</td>
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<td>Counterterrorism as a Focal Point for US-Russian Collaboration</td>
<td>Michael Friske, Vincent Delany, David Maynor, Jonathan Stamp</td>
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<td>Avoiding a Second Cold War: &quot;Putin&quot; It All Together</td>
<td>Tyler Sinisgalli, Derek Bisgard, Christian Griffin, Giorgi Janjalia</td>
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<td>La adquisición rápida de idiomas para el ejército (Rapid Acquisition of Tactical Language for the Army)</td>
<td>Mark Salinas</td>
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<td>La esclavitud moderna: nuevos esfuerzos contra el tráfico humano (Modern-Day Slavery: New Solutions to Combat Human Trafficking)</td>
<td>Claudia Caso, Kaitlyn Christian, Gavin Lucero</td>
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<td>La transición izquierdista en las Américas: ¿Cómo deben los EEUU responder?  (The Leftist Transition in the Americas: How Should the US Respond?)</td>
<td>Michael Maniaci, Stephen Lee, Andrew Villarreal</td>
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<td>La América Latina y la marginación de la gente indígena (Latin America and its Marginalization of Indigenous Peoples)</td>
<td>Casey Smith, Roberto Hernández, Matthew Hansen, Jacob Zenger</td>
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<td>Cambios lentos: las FARC logra reformas sociales en Colombia (Change Over Time: The FARC Helps Colombia Achieve Social Reform)</td>
<td>Isaac Gutiérrez, Joshua Kelchner, Jonathan Maddux</td>
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<td>0900-</td>
<td>WHS300</td>
<td>A Critical Geopolitics Analysis of U.S. - China Relations</td>
<td>Daniel S. Lucero</td>
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<td>Biogas Formation and Its Potential Use in the United States Army</td>
<td>Joshua A. Karper</td>
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<td>Buddhism in the United States</td>
<td>William C. Tucker</td>
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<td>Climate Change and its Relationship to Conflict</td>
<td>Cody D. Ikkala</td>
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<td>Composting on FOBS with Waste Shipping Containers</td>
<td>Justen Anka, Andrew B. Colvin, Matthew M. Fitzgerald, Elizabeth I. Kim</td>
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<td>Cultural Identity in Pikine, Senegal: Intersection of Rural Tradition and Urban Cosmopolitanism</td>
<td>Joseph C. Shelzi</td>
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<td>Development of a Net Zero Wastewater Treatment System for the Developing World</td>
<td>Phoebe S. White</td>
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<td>Disinfection Utilizing Organic Acids</td>
<td>Elizabeth I. Kim, Richard R. McPhee</td>
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<td>Ecological community effects on invasive plants: Barberry plants on West Point training areas</td>
<td>Collin B. Wittmeyer</td>
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<td>Food Availability in San Antonio, Texas</td>
<td>Harrison G. Green</td>
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<td>From Convenience to Habit: Recycling Within the Corps of Cadets</td>
<td>Christine M. Esachina</td>
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<td>Informal Power Structures and Economies in Informal Settlements of Dakar, Senegal</td>
<td>John G. Miele</td>
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<td>Microscale Wind &amp; Solar Power Potential on West Point</td>
<td>William Anderson, Emily Clemons, Mauri Dimeo, Megan Moore, Karina Quezada, Alexandre Roy</td>
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<td>Novel Handheld Water Treatment System</td>
<td>Joseph I. Chang, Daniel L. Foky, William A. McCarty, Phoebe S. White</td>
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<td>0900-</td>
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<td>Polonite: An Engineered Phosphate Source for Remediating Lead on Firing Ranges</td>
<td>Johannes K. Olind</td>
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Department of Geography and Environmental Engineering

Appreciation and great thanks goes to the GENE Projects Day Sponsors:

Center for the Study of Civil-Military Operations
Engineers for a Sustainable World
The Kasiisi Project
Oak Ridge National Laboratory
Department of Geography and Environmental Engineering

0900-1130  WHS300  Present and Future Spatial Distribution of Collisions in the Newburgh-Middletown Urban Area
             Benton E. Beltramo, Michael E. Williams

0900-1130  WHS300  Rancho Santa Fe, Honduras: A Sustainable Community Development Analysis
             Alessandra G. Coote

0900-1130  WHS300  Solar Powered Chicken Coop in Rural Uganda
             Susan R. Kiernan

0900-1130  WHS300  Solar Powered Cooling System for a Water Buffalo
             Ryan V. Frykman, Patrick J. Heeter, Joshua A. Karper, Brett R. Krueger

0900-1130  WHS300  The Aboriginal People of Taiwan: Maintaining the Culture through Radical Indigenism
             Alicia S. Dotson

0900-1130  WHS300  The Geography of Research and Development in Israel
             Sara L. Schubert

0900-1130  WHS300  The Keystone XL Pipeline: Energy, Environment, & Risk Perception
             Paul N. Tindall

0900-1130  WHS300  Water Treatment System for a Village in a Developing Community
             Johannes K. Olind, Chad M. Perkins, Scott P. Silvester, Patrick M. Yu

0900-1130  WHS300  Wind Sock Representativeness and Terrain Effects: Ft Putnam and the North Dock Area
             Brett Kroll, Kyle Wilde, Kenneth Jackson, Susan Kiernan, Christian Beckler

1300-1330  WHS327  Environmental Biological Systems Fermentation Lab Challenge
             EV396 Cadets
Department of History

900  TH 127  Military Training at West Point during World War II (Thesis Defense)
      CDT  Sara Roger

900  TH 160  Will He Give the Order? President Truman and Early Nuclear Hints During the 1948
      Berlin Crisis (Thesis Defense)
      CDT  Brandon Gillett

900  TH 158  Air Mobile Pacification: An Examination of the 1st Cavalry Division in Vietnam
      (Presentation)
      CDT  Grant Miller

930  TH 158  Reconstructing and Testing 15th Century Artillery (Presentation)
      CDT  Nicholas Hulm

1000  TH 127  Under Reported: US Print Media Coverage of the Shining Path Movement in Peru
       During the Decade of the 1980s (Thesis Defense)
      CDT  Franklin Shuler

1000  TH 160  Air Mobile Pacification: An Examination of the 1st Cavalry Division in Vietnam
      (Thesis Defense)
      CDT  Grant Miller

1000  TH 158  Military Training at West Point During World War II (Presentation)
      CDT  Sara Roger

1000  TH 158  Origins of Genocide: Rwanda Under Belgian Colonization (Presentation)
      CDT  Joseph Ramos

1100  TH 127  Memorias de “La Guerra”: How Dominicans Remember the U.S. Intervention of 1965
       (Thesis Defense)
      CDT  Anthony Guerrero

1100  TH 160  Eisenhower’s New Look and the First Taiwan Straits Crisis (Thesis Defense)
      CDT  Justin Kan

1100  TH 158  Lee’s Decision: The Road to Secession (Presentation)
      CDT  Joseph Lorfink

1130  TH 158  The Revolt of the Generals: A Civil-Military Affair (Presentation)
      CDT  James Farris

1300  TH 127  Ataturk and the Arts: The Cultural Roots of Turkey’s Transformation
       (Thesis Defense)
      CDT  Shawn Brands

1300  TH 160  The Revolt of the Generals: A Civil-Military Affair (Thesis Defense)
      CDT  James Farris

1300  TH 158  But for Shuttlesworth: A Reevaluation and Elevation of the Role Fred Shuttlesworth
       Played in Birmingham in 1963 (Presentation)
      CDT  Shelton Proctor

1330  TH 158  U.S.—Turkish Relations During the 1991 Gulf War (Presentation)
      CDT  Margaret Glunt

      CDT  Harrison Morgan

1400  TH 127  Lee’s Decision: The Road to Secession (Thesis Defense)
      CDT  Joseph Lorfink
# Department of Law

The Law Conference Room, SJA Courtroom and the West Point Center for the Rule of Law are located on the 4th Floor of Building 606 (Admissions Building)

Appreciation and great thanks goes to the D/Law Projects Day Sponsors:

- West Point Center for the Rule of Law
- John D. and Catherine T. MacArthur Foundation
- Hatton Sumners Foundation
- Stearns Weaver Miller Weissler Alhadeff & Sitterson, P.A.
- Audia Group (Washington Penn Plastics Co.)
- West Point Association of Graduates

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<th>Thesis Advisor</th>
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<td>0900</td>
<td>LAW CONFERENCE ROOM</td>
<td>Konrad Bunde</td>
<td>“Target Killings: A Study of the Nature and Scope of the Response Against Transnational Non-State Actors and Terrorism”</td>
<td>LTC Mark Visger</td>
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<tr>
<td>1000</td>
<td>CENTER FOR THE RULE OF LAW</td>
<td>Patrick Collins</td>
<td>”Krieg's List: Morality, Self-Defense and State Security in Contemporary LOAC”</td>
<td>MAJ Shane Reeves</td>
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<tr>
<td>1000</td>
<td>SJA COURTROOM</td>
<td>Mock Trial</td>
<td>Cadet Mock Trial Team: Ralph Meekins, Shawn Sweaney, Jared Heslop, Kiam Boerema, Brianna Miller, Meagan Brosnan &amp; John Seward</td>
<td>CPT Charles Bronowski</td>
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<td>1100</td>
<td>LAW CONFERENCE ROOM</td>
<td>The Center for the Rule of Law</td>
<td>The short film: Point to Point: Cadets travel to post-civil war slum West Point Liberia.</td>
<td>CDT Magaret Budke &amp; CDT Catherine Steele</td>
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<td>1100</td>
<td>CENTER FOR THE RULE OF LAW</td>
<td>Allyson Hauptman</td>
<td>“Autonomous Weapons and the Laws of Armed Conflict”</td>
<td>COL David Wallace</td>
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<td>1200</td>
<td>LAW CONFERENCE ROOM</td>
<td>Yasha Khoshroo</td>
<td>&quot;The STOCK Act: An Unstable Investment in the Rule of Law&quot;</td>
<td>LTC Janine Felsman</td>
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<td>The Great Debate</td>
<td>The Great Debate: West Point Speech Team Debate Competition</td>
<td>MAJ Shane Reeves</td>
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<td>CENTER FOR THE RULE OF LAW</td>
<td>Law 495 Capstone Course</td>
<td>Law 495 Capstone Course Appellate Debate Competition</td>
<td>MAJ Shane Reeves</td>
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<td>1600</td>
<td>LAW CONFERENCE ROOM</td>
<td>Margaret Budke</td>
<td>&quot;Religious Law in the USSR: Then Implications of a Failure&quot;</td>
<td>Professor Robert Goldstein</td>
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<td>Location</td>
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<td>Thayer Hall 120A</td>
<td>0830</td>
<td>Statistical Analysis of Professional Golf: Advantages of Playing Aggressive vs. Safe Safe</td>
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<td>Francesco Candelmo</td>
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<td>Thayer Hall 120B</td>
<td>0830</td>
<td>A Game Theoretic Approach to Two-Party Nuclear Deterrence in the Modern World</td>
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<td>William Reynolds</td>
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<td>Thayer Hall 120A</td>
<td>0900</td>
<td>Data Analytics in Support of Army Football Defensive Operations</td>
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<td>Kahlan Maki</td>
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<td>Thayer Hall 120B</td>
<td>0900</td>
<td>The Modeling and Analysis of Social Media for Understanding the Influence Factors of Social Movements</td>
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<td>Connor Hanafee</td>
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<td>Thayer Hall 120B</td>
<td>0930</td>
<td>Modeling Irregular Warfare for Understanding Modern US Doctrine and Strategy</td>
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<td>Allen Moss</td>
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<td>Thayer Hall 120A</td>
<td>1000</td>
<td>Improving Cadet Admissions through Data Analytics</td>
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<td>Evan Szablowski</td>
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<td>Thayer Hall 120B</td>
<td>1000</td>
<td>Using Data Analysis and Network Models to Combat Crime</td>
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<td>Benjamin Potter</td>
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<td>Thayer Hall 120A</td>
<td>1030</td>
<td>Quantifying Team Chemistry in Hockey</td>
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<td>KiAndre Chambers</td>
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<td>Thayer Hall 120B</td>
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<td>Identifying and Isolating Influential Subgroups in Social Media Networks</td>
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<td>Jeffrey Nielsen</td>
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<td>Thayer Hall 120A</td>
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<td>Effective Measures for Predicting Spread in SIS Models</td>
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<td>Robert Delaney</td>
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<td>Thayer Hall 120B</td>
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<td>Using Digital Signal Processing to Optimize Weak Signal Detection</td>
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<td>Austin Harris</td>
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<td>Thayer Hall 120A</td>
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<td>Crime Mapping with Point Processes</td>
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<td>C. Lance Mayberry</td>
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<td>Thayer Hall 120B</td>
<td>1300</td>
<td>Origami Mathematics: The Basics of Tree Theory</td>
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<td>Garrek Hojan-Clark</td>
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<td>Thayer Hall 120A</td>
<td>1330</td>
<td>Modifying Paradigms for Amateur Pitching Selection</td>
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<td>Quinn Shellhorn</td>
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<td>Thayer Hall 120B</td>
<td>1330</td>
<td>The United States Military Academy Indoor Obstacle Course - Predicting Successful Performance</td>
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<td>Richard Wycklenndt</td>
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<tr>
<td>Thayer Hall 120A</td>
<td>1400</td>
<td>Satellite Mechanics and Orbital Decay</td>
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<td></td>
<td></td>
<td>Jason Wright</td>
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</tbody>
</table>
### Projects supported by the Network Science Center

Appreciation and great thanks goes to the Network Science Center Projects Day Sponsors:

**Army Research Office**
**Office of the Secretary of Defense**

All presentations will be held in Thayer Hall 2nd Floor Hallway (West Side) from 1000-1200

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<tr>
<th>Location</th>
<th>Time</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Thayer Hall</td>
<td>0800-0855</td>
<td>Democracy in Political Networks.</td>
<td>CDTs Sam Terhaar, Jared Van Curen, Jason Wright, Zack Engen</td>
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<tr>
<td>NSC Rm 119</td>
<td>0800-0855</td>
<td>The YouTube Controversialist: Topographic Analysis of Dynamic YouTube Comment Networks</td>
<td>CDTs Bradley Hodgkins and Frederick Ulrich</td>
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<td></td>
<td>0800-0855</td>
<td>Analyzing the Policy Implications of Military, Economic, and Diplomatic Networks</td>
<td>CDTs Rob Delany, Ben Potter, Jeffrey Nielsen, and Victoria Emerson</td>
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<td></td>
<td>0800-0855</td>
<td>United States of Marijuana. Adviser: Kate Coronges</td>
<td>CDTs Allen Moss, John T Lang, Peter Tyree, and Daniel Beekman</td>
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<tr>
<td></td>
<td>0800-0855</td>
<td>Maximizing Small Business Client Networks.</td>
<td>CDTs Carl Rios and Jae Yu</td>
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<td></td>
<td>0800-0855</td>
<td>Android Controlled Vulnerable-Aware Robot Swarms (AVARS)</td>
<td>CDTs Sean Coffey, Nolan Miles, Stephen Rogacki, Isaiah Salsman</td>
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<tr>
<td></td>
<td>0800-0855</td>
<td>Semantic Network analysis to Gauge Sentiment Among Young Muslins: A Pilot Study Location</td>
<td>CDT Vincent Schuele</td>
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<td></td>
<td>0800-0855</td>
<td>Athena Visualization Tool: Visual Document and Media Exploitation (DOMEX) of email communications recovered from captured battlefield electronic devices to assist in tactical and operational intelligence analysis and collection planning</td>
<td>CDTs Tony Kirkland, Larisa Tudor, Kyle Kiriyama</td>
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<td>0800-0855</td>
<td>Social Network Content Notification in Facebook.</td>
<td>CDTs Guillermo &quot;Willie&quot; Hernandez ('14) and Cory Kirk ('15)</td>
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<td></td>
<td>0800-0855</td>
<td>Identifying Sets of Epidemic Spreaders in Complex Networks</td>
<td>CDT Geoffrey Moores ('14)</td>
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<td>0800-0855</td>
<td>A Scalable Heuristic for Viral Marketing Under the Tipping Model</td>
<td>CDT Damon Paulo ('14)</td>
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<td>0800-0855</td>
<td>Leveraging Host Protein Network Topology to Identify Cancer-Causing Pathogens</td>
<td>CDT Joseph Hannigan ('14)</td>
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<td>0800-0855</td>
<td>Locating Weapons Caches with the SCARE Software</td>
<td>CDT Ellis Valdez ('15)</td>
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<td>0900-0930</td>
<td>The Modeling and Analysis of Social Media for Understanding the Influence Factors of Social Movements:</td>
<td>CDT Nicholas Wright</td>
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<td>0930-1000</td>
<td>Modeling Irregular Warfare for Understanding Modern US Doctrine and Strategy:</td>
<td>CDT Allen Moss</td>
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<td>1000-1030</td>
<td>Using Data Analysis and Network Models to Combat Crime</td>
<td>CDT Benjamin Potter</td>
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<td>1000-1030</td>
<td>Civil Affairs Veterinary and Agricultural Assessment, Analysis and Planning Methodology:</td>
<td>CDTs Michael Regan, Tom Ott, Armando Pena, and Travis Hinds</td>
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<td>1030-1100</td>
<td>Identifying and Isolating Influential Subgroups in Social Media Networks:</td>
<td>CDT Jeffery Nielsen</td>
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<td>1100-1130</td>
<td>Effective Measures for Predicting Spread in SIS Models:</td>
<td>CDT Robert Delany</td>
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</table>
**Department of Physics and Nuclear Engineering**

Appreciation and great thanks goes to the PANE Projects Day Sponsors:

- Photonics Research Center
- Army Research Office (ARO)
- Defense Threat Reduction Agency (DTRA)
- Space and Missile Defense Command (SMDC)
- High Energy Laser Joint Technology Office (HEL-JTO)
- MIT Lincoln Labs

All presentations will be held in Bartlett Hall North 1st Floor

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
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<tr>
<td>0930</td>
<td>Development of a Chaotic Pendulum for Demonstrations and Experiments</td>
<td>Christopher Wink</td>
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<tr>
<td>0930</td>
<td>Optimization of a Delayed Neutron Detector Design</td>
<td>Tyler Sutherland and Matthew Verlie</td>
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<tr>
<td>0930</td>
<td>Late Cloud Film Analysis: Determining Cloud Rise from Film</td>
<td>Conor Dougherty and Hannah Stihel</td>
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<tr>
<td>0930</td>
<td>Design of a Methodology to Calculate Radiation Protection Factors on Army Vehicles</td>
<td>Charles McCawley and Aaron Stout</td>
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<td>0930</td>
<td>Radiological Detection UAV (Demonstration outside of the Lincoln Doorway)</td>
<td>Grant Demaree and Aaron Horwood</td>
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<td>0930</td>
<td>Optical Flash</td>
<td>Christopher Malachosky</td>
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<td>0930</td>
<td>X-ray Florescence Laboratory Exercise Design</td>
<td>Christopher Malachosky and Kristian Schott</td>
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<td>0930</td>
<td>Compact Production of Novel X-rays as a New Modality for Imaging Soft Tissue</td>
<td>Branden Passons</td>
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<tr>
<td>0930</td>
<td>Nuclear Forensics: A Way Ahead for the U.S. and the International Community</td>
<td>Chris Antweiler</td>
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<td>0930</td>
<td>Material Optimization of Concrete in a Dry Cask Storage System</td>
<td>Chris Antweiler &amp; Kyle Forward</td>
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<td>0930</td>
<td>Detecting Anti-Personnel Landmines Using Neutron Backscatter</td>
<td>John Asbach</td>
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<td>0930</td>
<td>One in Eight: A Study on Computer-aided Detection for Mammography Screening</td>
<td>John Asbach and Branden Passons</td>
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<td>0930</td>
<td>Characterization of the West Point Pelletron Accelerator Using Rutherford Backscattering</td>
<td>Eliot Bieletto, Derek West, Kurt Yeager</td>
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<td>0930</td>
<td>A Yb:KGd(WO₄)₂ Femtosecond Oscillator for Non-Linear Microscopy Applications</td>
<td>Justin Verdi</td>
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<td>0930</td>
<td>Dielectric Material for a Radar Calibration Satellite</td>
<td>William Schmidt and Justin Vonsik</td>
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<td>0930</td>
<td>Astrodynamics for a Radar Calibration Satellite</td>
<td>Nathaniel Eliasen</td>
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<td>0930</td>
<td>Laser Retroreflectivity for a Radar Calibration Satellite</td>
<td>Austine Scales</td>
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<td>0930</td>
<td>Current State of Vehicle Radiation Protection Factor Modeling and Experimentation</td>
<td>Paul Kim</td>
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<td>0930</td>
<td>Characterization of the N3 Radiation Detection Backpack for Passive Detection of Nuclear Material</td>
<td>Matthew Verlie</td>
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<td>0930</td>
<td>Validation and Verification of HEMPTAPS Version 9.1 for Accreditation</td>
<td>Patrick Rachel</td>
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<tr>
<td>0930</td>
<td>Towards Identifying Photonic Mechanisms of Seasonal Affective Disorder</td>
<td>John Marinelli</td>
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Department of Physics and Nuclear Engineering

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Army Research Office (ARO)
Defense Threat Reduction Agency (DTRA)
Space and Missile Defense Command (SMDC)
High Energy Laser Joint Technology Office (HEL-JTO)
MIT Lincoln Labs

0930-1130  The Effects of Jitter and Spot Size on Energy Transfer During a Laser Engagement, BH011N
          Jordan Smith and Daniel Blaine

0930-1130  The Heat Transfer Effects of Target Mass Removal in a High Energy Laser Engagement, BH011N
          Tyler Federwisch and Frank Arnold

0930-1130  High Energy Laser Demonstration in the Photonics Research Laboratory, BH011N
Dynamic balance and cognitive function associated with traumatic brain injury
*Derrico, Amanda, CDT, Detrempe, Benjamin, CDT, Jakub, Ikaika CDT, Risinger, Jacob, CDT, Osei, Emmanuel, CDT*

Foot architecture and physical activity
*Flint, Sean, CDT Kosicki, Stephen, CDT Mecker, Jonathon, CDT*

Physiological stress of IBCT gun crews
*Foreman, Colton, CDT Whitten, Thomas, CDT*

Impact of Secondary Tasks on Preferred Gait Transition Speed
*Orrechio, Schuyler, CDT Trainor, Brian, CDT*

Anthropometric determinants of running velocity
*Hodgen, James, CDT*

Central nervous system activation and skeletal muscle fatigue
*Houle, Katherine, CDT*

Rhythm and symmetry of lower-body power generation
*Leonard, Katherine, CDT Bushart, Jacob, CDT*

Muscle activation and pull-up proficiency
*Held, Tiffany, CDT Lange, Wells, CDT Reynolds, Scott, CDT*

AIAD – Physical Therapy
*Foreman, Colton, CDT*

AIAD – Physical Therapy
*Reynolds, Scott, CDT*

AIAD – Physical Therapy
*Cline, Caleb, CDT*
Department of Social Sciences

0800-0930 LH122 Brotherhood’ or False Rhetoric? Examining Cooperation between al-Qa’ida in the Arabian Peninsula and al-Shabaab - Stuart Caudill

0800-0930 LH 100 American Hegemonic Power following the Cold War
Alexandria Sieracki

0800-0930 LHB 102 The Effect of Stress on Financial Decision Making
William Alfonsi

0800-0930 LHB 101A State Cession of Sovereignty: France, the Delors Report, and European Monetary Integration
Sarah Haight

1000-1130 LH122 The Power of Individuals: Vote Choice in the Senate
Matthew Curliss

1000-1130 LH 100 A Case Study of ConocoPhillips Corporation: The End of Vertical Integration in the Oil Industry?
Alexander Rubilar

1000-1130 LHB 102 The Impact of Individual Education Plans on Per Pupil Expenditures
Thomas Dickson

1000-1130 LHB 101A Interactions between the Military and Humanitarian NGOs
Alexander Morrow

1300-1430 LH122 Explaining Causes of Conflict over Water Resources in African River Basins
Christopher Best

1300-1430 LH 100 The Effect of Professions of Faith in Presidential Elections on Voter Decision
Michael Manougian

1300-1430 LHB 102 Stock Markets and Economic Growth: Instrumental Variable Evidence
Michal Fiuk

1300-1430 LHB 101A Rising without Conflict: Peaceful Change in a Unipolar Power Structure
William Dickson

1500-1630 LH122 Unchartered Territory? Analyzing the Convergence of Military and Intelligence Operations
Albert Tumminello

1500-1630 LH 100 Hurricane Katrina: An Examination of Executive Power in Disaster Response
Sean Toal

1500-1630 LHB 102 Marijuana Decriminalization: The Effect on Usage Among Massachusetts Youth
Joseph Mckenna

1500-1630 LHB 101A Unfolding the Dragon's Wings: The Rise of Sino-Middle Eastern Relations and the Formation of the Eastern Order - Skylar Mackay
Defense and Strategic Studies

Appreciation and great thanks goes to the DSS Projects Day Sponsors:

**US Army Pacific G5**
**US Army Intelligence & Security Command**
**Defense Threat Reduction Agency**
**The Joint Staff, J-5 Middle East**

**US Army I Corps**
**The Joint Staff, J-5 Asia-Pacific**
**The Office of Net Assessment (OSD)**

All Presentations Will Be Held in Washington Hall 5114, The Benavidez Room

0745-0800  The Seven Leaders of Men: The Quest for Reason
**A Novel Written by Cadet John Klatt**

0800-0830  "One Korea, Two Systems: Pathways to Reunification Through Peaceful Multilateral Efforts"
**Cadets Christopher Beck, Matthew Berman, Brian Costella, John Klatt and Kenneth Medina**

0830-0900  "Cyber Defense Chain of Command"
**Cadets Jurgen Baumgarten, Angel Collado, Tommy Daniel, Lucas Hornick and Gordon McElroy**

0900-0930  "Tomorrow’s Strategic Confrontation: Implications of the CBRNE Heads Up Display"
**Cadets Michael Bernier, Benton Conque, David Hamski, Andrew Horne and Nicholas Kagen**

0930-1000  "The Day After: U.S. Response to a Nuclear Iran"
**Cadets Jillian Busby, Robert Gillis, Stephen Horning, John Rush and Brewster Tisson**

1000-1030  "Conduits for Strengthening Ties in the Asia Pacific Region with Australia, Thailand, and the Philippines"
**Cadets Everett Benson, Christopher Posadas, Matthew Revels and Michael Woods**

1030-1100  "International Solutions to Drug Trafficking in Central America"
**Cadets Joseph Clegg, Andrew Desplinter, Daniel Moriarty, Todd Sullivan and Charles Weekley**

1100-1130  “Envisioning the U.S. Army’s Future Role in the Asia-Pacific Region”
**Cadets Robert Barnett, Christopher Johnson, Caleb Mancuso and Spencer Rome**

1130-1200  "A Study of PLA Enlisted Capabilities"
**Cadets Jonathan Di Bianca, Cameron Greek, Joshua Haskins, David Heikkila and Heather Hernandez**

0730-1200  "Margins of Excellence Gap Inside the Military Domain: Creating a Black & Gold Company at West Point"
**A Thesis Project by Cadet Mitchell McKnight**
(Poster Only — Thesis defense to be held on 3 May from 1100-1155 in Washington Hall 5114)

0730-1200  "Implementing Operational Design Across the US Army"
**A Thesis Project by Cadet Luke Loftsgaarden**
(Poster Only — Thesis defense to be held on 7 May from 1250-1345 in Washington Hall 5114)

0730-1200  "The Effects of Ergonomic Choice on Marksmanship"
**A Thesis Project by Cadet Benjamin Stone**
(Poster Only — Thesis defense to be held on 9 May from 1250-1345 in Washington Hall 5114)

0730-1200  "A Joining of Cultures: Special Operations Forces and Interagency Cooperation"
**A Thesis Project by Cadet Kyle Bleikamp**
(Poster Only — Thesis defense to be held on 10 May from 1250-1345 in Washington Hall 5114)
Department of Systems Engineering
General Donald R. Keith
Memorial Cadet Capstone Conference
0730-1630—Jefferson Hall

We welcome the following Universities to SE Projects Day:
- George Mason University
- Stevens Institute of Technology
- United States Air Force Academy
- University of Arkansas
- University of Nebraska
- University of Texas—Tyler
- Youngstown State University

Appreciation and great thanks goes to the SE Projects Day Sponsors:
- Problem Solving in SE: INCOSE
- Systems Design for Defense Applications: NYC USACE/SAME
- Systems Design: MORS
- Project Management: Phillips Endowment
- Modeling and Simulations for Military Applications: INFORMS-MAS
- Modeling and Simulation: INFORMS-Executive
- Process Modeling and Analysis: TRAC-WSMR
- Decision Analysis: INFORMS-DAS
- Poster Competition: TRAC

Organizations that are involved with DSE Capstone Projects:
- Army Geospatial Center (AGC)
- Office of the Under Secretary of Defense for Personnel and Readiness (OSD P&R)
- Assistant Chief of Staff for Installation Management (ACSIM)
- 95th Civil Affairs Brigade
- United States Army Materiel Systems Analysis Activity (AMSAA)
- Armament Research, Development and Engineering Center (ARDEC)
- Office of the Deputy Chief of Staff of the Army, G-4 Logistics
- Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASAALT)
- Armament Research, Development and Engineering Center (ARDEC)
- Boeing
- Department of Homeland Security (DHS)
- Transportation Security Administration (TSA)
- US Army Corps of Engineers Engineer Research and Development Center (ERDC)
- Keller Army Community Hospital
- Lockheed Martin
- Program Executive Office – Soldier, Natick Labs
- Naval Postgraduate School (NPS)
- National Reconnaissance Office (NRO)
- Program Manager Unmanned Aerial Systems (PM UAS)
- The Joint Center for Excellence for Armament and Munitions (RDECOM – Picatinny)
- United States Army Simulation and Training Technology Center (STTC)
- Tobyhanna Army Depot (TYAD)
- United States Agency for International Development (USAID)
- United States Army Special Operations Command (USASOC)
### Department of Systems Engineering

#### Decision Analysis  Location: Jefferson Hall CEP Reading Lab

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<td>The Flightline of the Future: Facility Location Optimization</td>
<td>Zachary Matthews, Ethan Senn, Elizabeth Coleman, and Loren VanRassen</td>
<td>Air Force Academy</td>
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<td>0910</td>
<td>Army Family Programs</td>
<td>CDT Gabriel Bull, CDT Andrew Boyd, CDT Brian Austin, CDT Richard Bullis</td>
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<td>Building Campus Capacity for a Culture of Sustainability</td>
<td>Aida Conroy, Diego Garcia, Mason Ben-Yair</td>
<td>Columbia University</td>
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<td>1030</td>
<td>A Decision Support Tool for Building Leasing Strategies to Achieve the Executive Order Mandate for Federal Government Green Buildings</td>
<td>Alexandre E. Cheytanov, Nathan R. Bales, Paramjeet C. Khanna, and Chris Swift</td>
<td>George Mason</td>
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<td>Inventory Analysis for Warehouse Cost Reductions</td>
<td>Maria Phillips, Hunter Hamer, Stephen Welling, Kathleen Vardell</td>
<td>Air Force Academy</td>
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<td>1340</td>
<td>Optimizing Retailer Coupon Distribution</td>
<td>Shayne Boyd, Colby Browning, Raymond Hill, Austin Howard, and Katy Dunkelberger</td>
<td>Air Force Academy</td>
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<td>1420</td>
<td>Federal Air Marshall Services</td>
<td>CDT Tim Meier, CDT Matt Philie, CDT Mark Castelli, CDT Marquis Morris</td>
<td>West Point</td>
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<td>Sports Analytics: Designing a Volleyball Game Analysis Decision-Support Tool Using Big Data</td>
<td>Sarah Almujahed, Nicole Ongor, John Tigmo, Navjot Sagoo</td>
<td>George Mason</td>
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<td>USMA Network NSA Grant</td>
<td>CDT Sang Woo Choi, CDT Kelsey Eargle, CDT Mikus Igaunis, CDT John Felker</td>
<td>West Point</td>
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#### Process Modeling and Analysis  Location: Jefferson Hall Rm 403

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<tr>
<th>Time</th>
<th>Project Title</th>
<th>Cadets / Students</th>
<th>School</th>
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<tr>
<td>0830</td>
<td>Design of a Small Scale Biodiesel Production System</td>
<td>Jeffrey Anderson, Jessica Caceres, Ali Khazaei, Jedidiah Shirey</td>
<td>George Mason</td>
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<td>0910</td>
<td>Runway Operational Quality Assurance</td>
<td>Melanie Baker, Daric Megersa, Alfonso Panlilio</td>
<td>George Mason</td>
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<td>0950</td>
<td>Civil Affairs Veterinary and Agricultural Assessment, Analysis, and Planning Methodology for the 95th Civil Affairs Brigade</td>
<td>Cadet Tom Ott, Cadet Travis Hinds, Cadet Armando Pena, Cadet Michael Regan</td>
<td>West Point</td>
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<td>1030</td>
<td>Army-Marine Corps Command and Control Integration</td>
<td>CDT Eric Park and CDT Richard Spellerberg</td>
<td>West Point</td>
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<td>1110</td>
<td>Implementation &amp; Evaluation of a Patient Reported Outcome Registry</td>
<td>CDT Anthony Sciuva, CDT Nicholas Kern, CDT Cory Trainor, CDT Kyle Esquibel</td>
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<td>1300</td>
<td>Cost Analysis for Remediation Systems for Depleted Uranium</td>
<td>CDT Raymond Northcutt, CDT Kahanl Maki, CDT Jarrett Mackey, CDT Joseph Walter</td>
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<td>1340</td>
<td>National Records Center FOIA Processing</td>
<td>CDT Eric Renn, CDT Tom Houser, CDT Mohamed Khan, CDT Peter Asmuth</td>
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<td>1420</td>
<td>Flightline of the Future</td>
<td>CDT Jonny Jung, CDT Gordon Campbell, CDT Chris Pawlik, CDT Mark Maley</td>
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<td>1500</td>
<td>The Next Generation Maintenance Management System</td>
<td>CDT James Farris, CDT John Mecker, CDT Brewster Tisson, CDT Grant Tucek</td>
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<td>1540</td>
<td>Improving the Performance of International Shipping Information Systems</td>
<td>Brian Hwang, Royd Lim, Paul Gaski, and Jon Jones</td>
<td>Air Force Academy</td>
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### Modeling & Simulation
**Location:** Jefferson Hall Rm 145

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<td>0830</td>
<td>Robotic Systems in the Infantry Platoon</td>
<td>CDT John Clark, CDT Drexel Martin, CDT</td>
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<td>Bradford Schaufert, CDT Lauren Hughes</td>
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<td>0910</td>
<td>Reducing Headaches: Shopping Center Traffic Flow Analysis</td>
<td>Kyle De Laurell, Alec Ferguson, Sean</td>
<td>Air Force Academy</td>
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<td>Hoang, Mitch Meahaffey</td>
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<td>1030</td>
<td>Tobyhanna Capstone</td>
<td>CDT Chiazo Ezekanagha, CDT Sung-Hoon</td>
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<td>Kim, CDT Jordan Springer, CDT William</td>
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<td>Improving the Special Forces Officer Career Model</td>
<td>CDT Alex Bean, CDT Felipe Anciola, CDT</td>
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<td>Ayman Andrews, CDT Michael Garman</td>
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<td>1300</td>
<td>Limits to Population Growth and Water Resource Adequacy in Sub-Saharan Africa, 1994-2100</td>
<td>CDT Daniel Copeland, CDT Mario Cortizo,</td>
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<td>CDT Benjamin Garlick, CDT Giancarlo</td>
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<td>Modeling and Reevaluating Performance Metrics and the Detox System in Denver Emergency Medical Response System</td>
<td>DJ Cherf, Joe Han, Dan Pickett, Jeff</td>
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<td>1500</td>
<td>Design to Improve the Productivity and Execution of Gravity Surveys</td>
<td>Evan Demick, Kyle Luukkonen, Sadeep</td>
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<td>Nonis, Yuri Zhylenko</td>
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<td>Corporate Responsibility for the U.S. Air Navigation Service Provider: A Decision Support Tool to Reduce CO2 Emissions from En-route Flights</td>
<td>Adel Elessawy, Gurpreet Singh, Joshua</td>
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<td>Singh, Karym Zabara</td>
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### M&S - Military Applications
**Location:** Jefferson Hall Rm 501

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<td>0830</td>
<td>Training Pipeline Model - Psyops</td>
<td>CDT Kris French, CDT Abigail Osman, CDT</td>
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<td>Kimberlyn Martin</td>
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<td>0910</td>
<td>Initial Business Case for EM Gun Application</td>
<td>CDT Chung, CDT Kirkland, CDT McGill,</td>
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<td>CDT Watts</td>
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<td>High-Energy Lasers in a Counter-Artillery Role</td>
<td>CDT Robert Allibone</td>
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<td>Geospatial Analysis Tools</td>
<td>CDT Nate Combs, CDT Zach Watts, CDT</td>
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<td>Brian Dickerson, CDT Rob Weart</td>
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<td>1300</td>
<td>Training Pipeline Model - CA</td>
<td>CDT Trevor Hanson, CDT Mike Kim, CDT</td>
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<td>Melissa McLaws</td>
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<td>1340</td>
<td>Dynamic Risk Assessment Model for Acquisition Projects</td>
<td>CDT Javier Sustaita, CDT James Jenkins,</td>
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<td>CDT Sean Boyle, CDT Emily Taylor</td>
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<td>Future Golden Hour: MEDEVAC/CSAR 2050</td>
<td>CDT Joshua Jackson, CDT Trent Steelman,</td>
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<td>CDT Daniel Valderrama, CDT Andrew</td>
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<td>Assessment of Distributed Simulation Tools</td>
<td>CDT Jesse Montgomery, CDT Ashford</td>
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<td>Harrigan, CDT Rob Reckner, CDT Will</td>
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## Systems Design

**Location:** Jefferson Hall Rm 401

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<th>Time</th>
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<th>Cadets / Students</th>
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<tr>
<td>0830</td>
<td>Costing Consumer Preferences for Micro Energy Markets</td>
<td>CDT Mary Prakel, CDT William Lane, CDT Wayne Pak, CDT Cheyne Rocha</td>
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<td>0950</td>
<td>Mitigating Suicide Risk via Peer Support Groups</td>
<td>CDT Timothy Martin, CDT Megan Maurer, CDT Croix Miller, CDT Dustyn Ruble</td>
<td>West Point</td>
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<td>1030</td>
<td>Improving Relations Between West Point and Highland Falls</td>
<td>CDT Robert Doyle, CDT William Matlock, CDT Steve West, CDT Reggie Carlson</td>
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<td>1110</td>
<td>DITRA</td>
<td>CDT Scott Geary, CDT Tim Ko, CDT Brenna Heisterman</td>
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<td>1300</td>
<td>Mitigating the Effects of Monotony on Unmanned Aircraft System Operators</td>
<td>CDT Christopher Law, CDT Matthew Oechsel, CDT Philip Hilaire, CDT Mario Turi</td>
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<td>1340</td>
<td>Soft Catch and Recovery of Artillery Rounds</td>
<td>CDT Erin Colton, CDT Jeff Evanko, CDT Marco Caress, CDT Shawn Sororian, CDT Nathen Demeo</td>
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<td>1500</td>
<td>Campus Parking &amp; Transportation System</td>
<td>Jeffrey Elliott, Heera Jayachandran, Praveen Kumar, Kyle Metzer</td>
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## Problem Solving in Systems Engineering

**Location:** Jefferson Hall Rm 121

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<th>Time</th>
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<th>Cadets / Students</th>
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<tr>
<td>0830</td>
<td>Parking Efficiency on Football Game Days</td>
<td>CDT Triada Cross, CDT Rick Foster, CDT Brian Gerardi, CDT Matthew Rzonca, CDT Jennifer Skawski</td>
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<td>0910</td>
<td>Depot-level Maintenance Decision Analysis</td>
<td>CDT Jen Handy, CDT Austin McGahan, CDT Anthony Buske, CDT Matt Mezer</td>
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<td>0950</td>
<td>Standardizing the Official West Point Mail Distribution Center</td>
<td>CDT Megan Coley</td>
<td>West Point</td>
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<td>1030</td>
<td>Manufacturing Facility Planning</td>
<td>John Ugrin, Lorin Delgros, Matt Azam</td>
<td>Youngstown State University</td>
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<td>1110</td>
<td>Analysis and Improvement of the Labor and Delivery Department for the University of Arkansas Medical Sciences (UAMS)</td>
<td>Robert Curry, Bo Dillon, Brent Wiles, Sarah Wood</td>
<td>University of Arkansas</td>
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<td>University of Nebraska</td>
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<td>1340</td>
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<td>Steven Beddingfield</td>
<td>University of Texas, Tyler</td>
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<td>1420</td>
<td>40mm Projectile</td>
<td>CDT Alex Beak</td>
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<td>Decision Analysis Support Model for a Technology Portfolio</td>
<td>CDT Alicia Dotson, CDT Sean Minton, CDT Mitchell Olsen, CDT Brian Rowen</td>
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### Project Management
**Location:** Jefferson Hall Rm 301

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<tr>
<td>0830</td>
<td>Improving Tobyhanna Army Depot Material Induction Process Lead Time</td>
<td>CDT Andrew Theising, CDT Clayton Mosley, CDT Benjamin Gutz, CDT Aaron Jacobson, CDT Zachary Fabi</td>
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<td>Talent Assessment in the Cadet Branching Process</td>
<td>CDT Shannon Clemente, CDT Michael Joyner, CDT Carson Reed, CDT Samuel Stevens</td>
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<td>1300</td>
<td>Black Knight I &amp; II Small Satellites</td>
<td>CDT Kevin Jones</td>
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<td>1340</td>
<td>Mini Baja</td>
<td>CDT Ed Timmins</td>
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<td>1420</td>
<td>Technology Replacement Decision model for Test, Measurement, and Diagnostic Equipment</td>
<td>CDT Brendan Buckley, CDT Brian Cobbs, CDT Aaron Duffy, CDT Karl Stonesifer</td>
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<td>Rearranging Distribution Centers to Align with the Stores They Serve</td>
<td>Adam Carr, Ryan Kunce, Mike Leland, Connor McKown</td>
<td>Air Force Academy</td>
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<td>1540</td>
<td>Resource-Constrained Scheduling to Increase Tissue Processing Throughput</td>
<td>Eric Amos, Chancellor Johnstone, Patrick Morgan, Kevin Rossillon</td>
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### Systems Design for Defense Applications
**Location:** Jefferson Hall Rm 514

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<td>0830</td>
<td>Tactical Cellular Communications</td>
<td>CDT Nick Wright, CDT Arnold Chun, CDT Frank Allen, CDT Greg Tarancon, CDT Stephen Peck, CDT Evan Danahy</td>
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<td>IAMD Site Optimization</td>
<td>CDT William Reynolds, CDT David Marx, CDT Thomas Dunn, CDT Holly Pappafotis</td>
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<td>0950</td>
<td>A modularization feasibility study for Cerberus Lite ground radar system</td>
<td>CDT Stuart Tepoorten, CDT Erin Farinelli, CDT Cody Ross, CDT Cody Nyp</td>
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<td>1110</td>
<td>Individual Carbine (IC) Parametric Requirements Analysis</td>
<td>CDT Arnulfo Ahumada, CDT Francesco Candelmo, CDT Bronson Lambert, CDT Michael McCarthy</td>
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<td>1300</td>
<td>ISR &quot;Search Window&quot;</td>
<td>CDT William Guiney, CDT Zach Cahalan, CDT Terence Murphy, CDT Patrick Cronin</td>
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<td>1420</td>
<td>An Operational Study in Support of ADAM Directed Energy Weapon System for ground force use</td>
<td>CDT Lawrence Massengill, CDT Gerome Anthony, CDT Joseph Valenzuela, CDT Daniel Chang</td>
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<td>Modular Lightweight Rapidly Deployable Structures</td>
<td>CDT Zach Ricketts, CDT Mike Sands, CDT Jason Pancoe, CDT Morgen Kiser</td>
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<td>Lightweight Autonomous Disposable UAV/UGVs</td>
<td>CDT Kendall Smith, CDT Anthony Rivera, CDT Parker Stevens, CDT Andrew Gregg</td>
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West Point Projects Day
2 May 2013

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