CLASS OF 1999
SANDHURST CONFERENCE

TRAINING TO WIN TOMORROW'S WARS

APRIL 3, 2017

Executive Summary

The second annual Sandhurst Conference took place on Monday, April 3, 2017 in Thayer Hall. Made possible through the generosity of the USMA Class of 1999, the all-day event brought together over five hundred future officers from USMA, ROTC, service academy, and international teams to discuss topics related to training to meet twenty-first-century threats and challenges. Sponsored by the Modern War Institute, the conference has become a staple of Sandhurst Week. The purpose of the Sandhurst Conference is to provide an intellectual counterpart to the Sandhurst Competition, a way to test our mental agility as well our military skills. The conference also reinforces West Point Superintendent Lt. Gen. Robert Caslen's aim to transform USMA's Department of Military Instruction into the world's preeminent military program. It does do by challenging our future military leaders beyond tactical and technical expertise; as well as by leveraging the uniquely diverse and international audience of Sandhurst teams to enhance cadets' critical thinking and complex problem solving skills.

The theme of this year's conference, "Training to Win Tomorrow's Wars," recognizes that technical and tactical competence alone no longer suffices for junior officers to meet the challenges of twenty-first-century warfare. With the character of warfare changing amid technology rapidly advancing, our military training must reflect the growing complexity and uncertainty of the modern battlefield. From realism in our computer simulations to managing the effects of resource constraints, training our junior officers is critical to future military success in an increasingly complex world. No longer is it enough to simply train cadets how to carry out raids or ambushes. From Somalia to South Korea, the threat environment requires that our officers be versed in information operations, hybrid warfare, and technological advances like robotics and autonomous systems (RAS) that are making the battlefield more complex and unpredictable.

The conference featured a series of panels, breakout discussions, speakers, and even a cadet-led Oxford-style debate, all focused on the issue of training to meet tomorrow's threats. Cadets, officers, and faculty discussed and exchanged ideas on tactics and training, from the role of non-lethal training techniques to improving technologies and simulations to replicate the modern battlefield. Brig. Gen. Diana M. Holland, Commandant of the United States Corps of Cadets, kicked off the conference with opening remarks. Below is a breakdown of the conference events. The conference closed with a cadet-led debate around the question: Should militaries apply enhanced interrogation to combat terrorism? The conference was followed by a reception at the West Point Club.

Executive Agenda
Monday, April 3, 2017

0800-0835 **MORNING RECEPTION**
Thayer Hall, *Robinson Auditorium Rotunda*

0835-0840 **INTRODUCTION**
COL Jonathan Neumann, Director of Department of Military Instruction (DMI)

0840-0850 **WELCOMING REMARKS**
BG Diana Holland, Commandant of Cadets, USCC

0850-0935 **OPENING KEYNOTE**
BG Jeffrey D. Broadwater, Commanding General, Fort Irwin & National Training Center
Topic: The Future of Training and Army Readiness

0935-0940 **CONFERENCE OVERVIEW**
Provided by: LTC Mike Jackson, Deputy Director, Modern War Institute

0940-0950 BREAK

0950-1045 **SESSION 1: OLD FOES DIE HARD: TRAINING FOR NEAR-PEER THREATS & HYBRID WAR**
Thayer Hall, Robinson Auditorium

Event Description: From Russia in Ukraine to China in the South China Sea, the future of warfare will involve near-peer competitors engaging in hybrid-style warfare. This panel will walk thru the challenges of how to train for conventional enemies engaging in unconventional tactics as well as how to better train our proxies in modern warfare.

Key Questions
1. At the tactical level, how should cadets be training for hybrid warfare?
2. How does the US Army train its proxies against near-peer-competitors?

Featured Speaker
Dr. Phillip Karber, President, Potomac Foundation

Moderator
LTC Mike Jackson, Deputy Director, Modern War Institute

1100-1150 **PANEL SESSION 2: HOW TO TRAIN FOR ASYMMETRICAL THREATS**
Thayer Hall, Robinson Auditorium

Event description: Members of the Asymmetric Warfare Group (AWG)) will discuss the tactical challenges of preparing for and fighting transnational threats in unfriendly terrain.

Key Questions
1. How should we prepare cadets for fighting non-state actors?
2. How do we better create realistic simulations for complex terrain?

Featured Speaker
COL Michael Loos, Commander, Asymmetric Warfare Group (AWG)

Moderator: MAJ John Spencer, Strategic Planner, Modern War Institute

1200-1250   LUNCH
             Cadets: Cadet Mess Hall | Faculty and Officers: West Point Club

1250-1345   **BREAKOUT SESSIONS 1-5: HOW TO TRAIN FOR ASYMMETRIC THREATS**

Event description: Each of the five regional commands will feature a separate breakout session with AWG regional commanders to discuss the practicability of this kind of training for asymmetrical threats at the tactical level, with a focus on regional threat environments, customs, cultures, and other challenges.

Speakers
EUCOM – Mr. Chris Scott – TH342
AFRICOM – Mr. Joe Dawson– TH342
SOUTHCOM – Mr. Jack Alvarez – TH344
PACOM – MSG Justin Larson – TH442
CENTCOM – Mr. James Hays – Rob Aud

1355-1450   **BREAKOUT SESSION 6: IMPROVING SIMULATIONS FOR MODERN THREATS**
             Thayer Hall Robinson Auditorium

Event Description: Innovation, the novel reuse of technologies and techniques for other-than-intended-for purposes, will continue to be what separates those that succeed from those that excel. Models and simulations provide an imperfect representation of reality. Specific to military training, simulations provide the *conditions* within which *tasks* are *trained* to *standard* – the task, condition, standard paradigm that's been a hallmark of Army training for the last three decades. Training simulations necessarily lag behind contemporary commercial technologies. In part this is because training simulations are meant to represent fielded systems and contemporary operating conditions, but also because oftentimes those technologies have to be combined with others to provide a new system. This discussion will address these and other challenges to realistically simulating the modern battlefield.

Key Questions
1. What are some innovative (economical, technological, etc.) ways to improve realistic simulations?
2. How do we assess cadet performance to prepare them for modern combat?

Featured Panelist
LTC Christopher Hartline, West Point Simulation Center

Moderator
CPT Caleb Goble, Department of Military Instruction

BREAKOUT SESSION 7: MULTINATIONAL INTEROPERABILITY AND COALITION TRAINING AGAINST HYBRID THREATS
Thayer Hall, Room 144

Event Description: Training involves tradeoffs. Should we be focused on major conventional combat operations, as Chief of State of the Army General Mark Milley has directed? Or should we train more tactically and focus on, say, improving soldiers' marksmanship? This session will examine this issue, as well as multinational interoperability and what makes platoons and companies successful in this sphere. Specifically, it will address training multinational forces in Europe to prepare them for irregular, conventional, and hybrid threats.

Key Questions
1. Do you train for major combat operations and assume soldiers will be able to pick up stability operations?
2. How should we experiment to find solutions to improve multinational interoperability?

Featured Panelists
CPT Matthew Larson, JMRC (Hohenfels, GERMANY)
1LT Robert Hurd, 7ATC JMRC (Hohenfels, GERMANY)

Moderator
LTC Mike Jackson, Deputy Director, MWI

BREAKOUT SESSION 8: 'COMBAT IN HELL' REVISITED: TRAINING FOR URBAN COMBAT
Thayer Hall, Room 344

Event Description: The presence of large urban areas ranging all the way to mega-cities pose significant challenges to how we conduct military operations. In an increasingly urbanized world, soldiers are far more likely to find themselves fighting in dense urban terrain. This panel will discuss the challenges, considerations, and best practices for how to train for these kinds of operations.

Key Questions
1. How do we train future officers to thrive in a complex environment such as dense urban areas?
2. What are the appropriate changes we should make in doctrine, training and technologies to address our vulnerability gaps in urban warfare?

Featured Panelist
MAJ John Spencer, Strategic Planner, Modern War Institute

BREAKOUT SESSION 9: "FIGHT ANYWHERE": TRAINING LIMITATIONS AND BUILDING ADAPTABILITY
Thayer Hall, Room 442

Event Description: Imagine a tactical scenario - a raid, an ambush, a defense - what do you see? Where is it happening? Who are you fighting? If you are like most Soldiers in most armies you are probably envisioning a squad or platoon, laying in wait out in the woods, fighting a uniformed enemy - one who is easily identifiable and not surrounded by civilians. The way we train, especially at our various commissioning sources, does not match the environment we are expected to fight in. How do we train leaders agile enough to be able to adapt quickly and effectively to a context that they may not have been specifically trained for? It is impossible for the Army to even familiarize a soldier or leader with every context they might face so how do we instill, across the force, an adaptive mindset which enables our leaders to quickly overcome a knowledge or perspective gap and develop effective solutions? There is also a metacognitive discussion, both about our personal and institutional biases as well as how our training and educational curricula influence the way that we as soldiers think about problems.

Key Questions
1. How do we train adaptive and agile leaders?
2. How can our meta-cognition improve performance on the battlefield?

Featured Panelist
Dr. Mike Matthews, Behavior Sciences & Leadership

Moderator
CPT Jake Miraldi, Strategic Projects Officer, Modern War Institute

BREAKOUT SESSION 10: TRAINING WITH NON-LETHAL TECHNOLOGIES
Thayer Hall, Room 342

Event Description: There is little training done on the rules, norms, and practices of non-lethal warfare at the tactical level as a way to avoid conflict escalation and use of lethal force. This affects soldiers' ability to conduct effective patrols and secure base perimeters. This panel will discuss greater advances in non-lethal technologies, from "active denial technology" to improved "flash bang" grenades. The panel will also discuss the role of TTPs and rules of engagement on non-lethal training.

Key Questions
1. How can militaries utilize non-lethal technologies into their training?
2. How can we effectively incapacitate the enemy without causing injury or death?

Featured Speakers
MAJ John Chambers, Department of Social Sciences
MAJ Allen Griffith, US Army, Columbia University

1500-1555   **CLOSING PANEL: CADET DEBATE**

RESOLUTION: "TO FIGHT TERRORISM, MILITARIES SHOULD USE ENHANCED INTERROGATION TECHNIQUES."
Thayer Hall, Robinson Auditorium

Event Description: Two members, respectively, of the United States Military Academy and Royal Military Academy at Sandhurst (RMAS) Debate Teams will debate the merits of enhanced interrogation techniques as a way to combat terrorism. Cadets in audience will vote on the winning team.

Moderator
MAJ Kevin Krupski, Department of Social Sciences

1555-1600   **CLOSING REMARKS: LTC Mike Jackson, Deputy Director, MWI**
              Thayer Hall, Robinson Auditorium

1600-1730   **SANDHURST RECEPTION**
              West Point Club

Keynote Summaries

Brig. Gen. Jeffrey Broadwater came out from behind the podium to really engage the audience of cadets on the need for flexibility and adaptability to meet current and future threats. By that he means that the world's disruptive technologies and greater interconnectivity—what he called the "velocity of instability"—can make smaller crises escalate faster and burn out slower. He points to a few alarming trends, including the use of social media to spread propaganda, the increased urbanization of the planet, and the enemy's greater niche capability to use tactical surprise (e.g., cyberattacks) to exploit our vulnerabilities. These enemies, both irregular and criminal, use advanced deception, denial, and ambiguity on an ever-changing battlefield. This makes it excessively difficult to train against. But Brig. Gen. Broadwater sounded an optimistic note because new generations were tech-savvier than their parents. From anti-tank guided missiles to unmanned aerial vehicles, he spoke of sophisticated new technologies that have reshaped the modern battlefield. However, he noted that the game-changer is not technology per se, from electronic warfare to social media, but rather it is how we use it.

Few people have more direct experience of the frontlines of Ukraine's war against Russia-backed separatists than Dr. Phillip Karber. He discussed the challenges of how to train for conventional enemies engaging in unconventional tactics as well as how to better train our proxies in modern warfare. From Russia in Ukraine to China in the South China Sea, the future of warfare will involve near-peer competitors engaging in hybrid-style warfare. At the tactical level, how should cadets be training for hybrid warfare? How does the US Army train its proxies against near-peer-competitors? Dr. Karber spoke at length about the threat posed by Russia, a country that boasted 210 divisions during the Cold War but now only around five. Less than one-third of its army is made up of professional soldiers, while 70 percent of its brigades comprise mostly conscripts with low morale. That explains its desire to rely on nonconventional means—subversion, nuclear threats, ceasefires, etc.—to exert force, whether in Ukraine or the Middle East. This so-called "hybrid" approach, however, is integrated into a much bigger military design. The decisive war that influenced Russian military doctrine, much as it did Soviet military doctrine previously, was the 1973 Yom Kippur War. The war was a preview of the potential lethality of hybrid warfare, as it displayed electronic warfare, advanced anti-tank weaponry, and decisive impact of maneuver, and exposed the vulnerability of light infantry vehicles. Dr. Karber pointed to future wars as resembling this conflict, given that there would never be uncontested airspace given the proliferation of drones to track and target. He fears the decision-makers in Washington, when it comes to confronting Russia, have treaded too cautiously, given their previous unwillingness to provide lethal weapons to Ukrainian forces. In terms of training, he said he was a "big fan" of simulations but that we must prepare for a Russia that has modernized its military, switched to more brigades and less divisions, and rolled out a new fleet of heavily armored vehicles. Any potential war, like the 1973 war, will be lethal, fast, and favor the offensive. Train accordingly, advises Dr. Karber.

Breakout Sessions Summaries

BREAKOUT SESSIONS 1–5 — HOW TO TRAIN FOR ASYMMETRIC THREATS

Each of the panelists addressed training techniques for asymmetric warfare as it pertains to their regional command. In the AFRICOM breakout, the audience was broken into groups to conduct a short table-top exercise based on a live-shooter case that occurred in an African capital several years back. The speaker gave practical advice that cadets who have had any SERE (Survival, Evasion, Resistance, Escape) training may be familiar with (in an insecure hotel, book a room near an egress, etc.). In the EUCOM breakout, there were three thematic issues addressed:

1. Modern Russian Warfare Methodology: Peer competitors such as Russia and China are watching US forces, collecting information and analyzing the ways and means of our strategy in order to develop meaningful countermeasures. A key takeaway is that the lessons learned in Ukraine have re-emphasized basic fieldcraft training in order to enhance battlefield survivability.

2. Electronic Warfare vs Control Measures: One of the most effective countermeasure is the use of the electromagnetic field to find and destroy near-peer opposing forces such as interrupting Ukrainian communication or using the electromagnetic field for target acquisition through drone support.

3. Home Station Training Implications: The appropriate but difficult balance must be struck between training for missions across a spectrum, from counterinsurgency to combined arms maneuver warfare.

BREAKOUT SESSION 6 — IMPROVING OUR SIMULATIONS FOR MODERN THREATS

Lt. Col. Christopher Hartline of West Point's Simulation Center provided an overview of why militaries do simulations. He stressed that this is "not a profession for the dim." We need to know that the motto "time is precious" is a reality and we cannot waste an opportunity to train. But when we train, we must keep in mind what the ends are. Simulations, he added, enable iterations of a model over time, allowing us to get to an end. Still, any professional begins at the bottom and simulations allow us to start low and work our way up. He concluded by emphasizing that a good simulation is multifunctional, lightweight, and rugged. The second speaker was Capt. Caleb Goble of the Department of Military Instruction. He added other important functions of simulations: to prevent injuries, improve cost efficiency, and allow for greater complexity that is hard to create otherwise. He specified several things to consider: Who certifies and at what level? What are the keys to success? He also noted that one can conduct simulations even when deployed.

Capt. Goble then took the group through a simulation by placing cadets into a quick virtual simulation of a squad attack in the Virtual Battlespace 3 simulation software. He discussed how leaders must begin with the basics and have several training objectives in mind to allow for flexibility, the cycle of "plan, prepare, execute, and assess," the sterility of the environment, and the notion that repetition builds a team. The audience asked several questions regarding the limitations of virtual simulations (e.g., how to compensate

for the lack of spatial awareness, how to avoid negative habit transfer, etc.). There was also discussion of how to combine real-world terrain or training areas with virtual training so the two could support one another.

The central takeaway from the session was that if leaders are going to use simulations, they should be ready for the simulation to drive the training, not the training to drive the simulation. Flexibility is paramount. While the hands-on experience for some of the observers was fun, most of the audience seemed interested in discussing the problems with simulations. The panelists presented simulations as an answer to problems; the audience was concerned that simulations was the cause of problems.

BREAKOUT SESSION 7 — MULTINATIONAL INTEROPERABILITY AND COALITION TRAINING AGAINST HYBRID THREATS

The speakers focused on a few key discussion points related to multinational interoperability. The phrase, they argued, is a function of the following questions:

- o Can we talk to each other? (same radios and crypto)
- o Do we speak the same language?
- o Are we talking about the same doctrine?
- o Do we approach doctrine in the same way? (For example, the US military considers doctrine a guideline; Soviet-based countries follow it specifically. Some of the latter are attempting to adopt the US approach, but personnel from these countries often still think with a Soviet mentality)

To improve tactical interoperability between partner nations, we must focus on the fundamentals: survivability and lethality. Fundamentals consist of using camouflage, moving deliberately, and using overwatch. If we don't use these fundamentals, technology won't help. Consider today's threat versus the counterinsurgency missions of Iraq and Afghanistan. Today, we can't take for granted that we are not under full observation by the enemy with sensor platforms, and this brings an important maxim into play: "if you can't see it, you can't kill it". Mission command is imperative—that is, decentralized operations allow for flexibility. Moreover, training must focus on minimal use of technology. We should train for the worst-case scenario in which US technological overmatch will be negated.

The discussion revolved around the Joint Multinational Readiness Center's "DATE" (Decisive Action Training Exercise), which focuses on "hybrid" threats. However, it appears the "hybrid" label is characterized by an enemy conventional mechanized force operating with the support of "special purpose forces" used for targeting. The trouble is the training scenario doesn't incorporate non-state actors (e.g., Russia's use of SOF to mobilize an indigenous population, create a crisis, then exploit it with their own conventional forces that continue to operate alongside proxies).

BREAKOUT SESSION 8 — "COMBAT IN HELL" REVISITED: TRAINING FOR URBAN COMBAT

With over half of the world's population living in urban areas, and projections of that figure to rise above 60 percent by 2030, urban warfare will be a key part of how militaries train going forward. Some of the key points of this session were to discuss training in the context of preparing for fighting amid dense megacities (cities with over ten million inhabitants). The rate of urbanization makes it more obvious that in the near future armies will have to enter megacities in order to conduct the full spectrum of military operations. However, most of the theories and doctrines prefer either to bypass or to lay siege to a city. Current US Army doctrine is based on assumptions that land forces can isolate cities, that external forces can control cities, and that land forces can operate from the periphery and penetrate into the target areas. Hence, there

is greater need for doctrinal innovation when it comes to urban warfare. To take one example, "dense urban terrain" as a term is not yet formally defined. No military has a proper doctrine to address the needs of future operations. Nor is there standardized training. The session discussed new technologies (e.g., a "hover bike") versus old (e.g., air defense using mass of rifle fire to destroy helicopters). Without a proper doctrine, "train as you fight," which is the #1 rule of training, is hardly achievable with the current setup of urban training areas or the lack of an urban warfare school.

BREAKOUT SESSION 9 — "FIGHT ANYWHERE": TRAINING LIMITATIONS AND BUILDING ADAPTABILITY

Capt. Jake Miraldi started with an introduction for the panel and the topic of the day. He discussed a few caveats on how to view adaptability, then set the stage from his deployment to northeastern Afghanistan in 2009. He asked the audience: What does adaptability mean to junior officers? He pointed to four key components:

1. Know the fundamentals, the basics
2. Understand how to adapt within the commander's intent
3. Adapt your actions to the enemy
4. Manage stress

Dr. Mike Matthews of Department of Behavioral Sciences & Leadership spoke on cognitive psychology and small unit leadership. He began by telling the audience a humorous story from his time as a police office, when he had to arrest a 300-pound woman covered in grease. The point, he said, is that no training could prepare him for this kind of task. He provided insight into procedural knowledge and semantic knowledge (experiential learning), and asked how we as leaders can try to develop both of these in tandem. His advice was twofold:

1. Train like it is the hardest/worst day of your life
2. Train for intuition; in reality it is knowing the options and trying different ones until something works

Dr. Matthews then raised a question: How do you build a training plan that develops cognitive readiness? The panel suggested the following:

1. Add in unpredictability
2. Use AARs (after action reviews) to cement learning
3. Create trust and empower creative thinking to help solve complex issues

The session wrapped up with closing comments related to how to mitigate combat stress. The panelists discussed the importance of officers' values and character, which matters both to leaders and their soldiers.

BREAKOUT SESSION 10 — TRAINING NON-VIOLENT ACTIONS

There is little training done on the rules, norms, and practices of non-lethal warfare at the tactical level as a way to avoid conflict escalation and the use of lethal force. This affects soldiers' ability to conduct effective patrols and secure base perimeters. This session addressed advances in non-lethal technologies, from "active denial technology" to improved "flash bang" grenades. The panel will also discuss the role of TTPs (tactics, techniques, and procedures) and rules of engagement on non-lethal training.

Maj. John Chambers stressed the importance of non-violent actions, citing examples ranging from the

1960s' civil-rights movement sit-ins to the movement that ousted Slobodan Milosevic from power. He cited studies by University of Denver's Erica Chenoweth that have shown the effectiveness of non-violent campaigns

Maj. Allen Griffith of Columbia University described why non-violent campaigns should be a tool for the military. Examples include the fallout of the Arab Spring and the Color Revolutions that swept through eastern Europe.

The audience was asked which skills they thought they would need to be trained on in order to support non-violent actions. The group narrowed it down to four:

1. Communication skills
2. Emotional intelligence
3. Cultural awareness
4. Situational awareness

One of the session's key takeaways is that replicating the conditions for training on non-violent actions is very challenging as it raises difficult ethical considerations (i.e., does it disadvantage the side that employs non-violence?).