

SPECIAL REPORT

A Summary of the Homeland Security Symposium conducted March 14-15, 2011 at Fort Leavenworth, Kansas



Homeland Security Symposium

March 14-15, 2011
Lewis and Clark Center
Fort Leavenworth, Kansas



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Two years ago Kansas State University and the U.S. Army Command and General Staff College (CGSC) expanded their long-standing educational partnership as they embarked on a new mission in support of vital national homeland security interests. Recognizing the crucial need for increased access to graduate programs addressing homeland security and emergency management issues, K-State and CGSC have been collaborating to develop a Homeland Security graduate certificate program aligned to the needs of regional homeland security professionals.

To support this project, Kansas Senator Pat Roberts led the effort to secure a non-competitive, Congressionally-directed grant in the amount of \$250,000 for the Command and General Staff College Foundation, Inc., for curriculum and course development related to this Homeland Security (HLS) education program.

During the two-day symposium conducted in March 2011, attendees were updated on the program development progress since the initial Homeland Security Educational Needs Analysis Workshop held in 2008. Attendees saw how their input in 2008 has been incorporated into a comprehensive program concept that will serve as a model program for educating, training, and maintaining the nation's homeland security professionals. Attendees also participated in symposium sessions focusing on diverse areas of homeland security. Through these sessions, attendees had the opportunity to share their unique professional experiences and insights to assist in finalizing the curriculum and to encourage dialogue among regional homeland security professionals about critical topics.

The Homeland Security Symposium at Fort Leavenworth was co-sponsored and hosted by the Command and General Staff College Foundation, Inc., and Kansas State University in support of the U.S. Army Command and General Staff College (CGSC). This report summarizes the activities and presentations during the symposium.

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Homeland Security Symposium

March 14-15, 2011
Lewis and Clark Center
Fort Leavenworth, Kansas

Agenda

Monday, March 14

1800 Reception & Welcome Commentary - Lewis & Clark Center- Atrium
The Importance of HLS Education
 Welcome by Bob Ulin, CGSC Foundation CEO, with remarks by Dr. Chris King, Dean of Academics, CGSC

Tuesday, March 15

0730-0830 Registration - Lewis & Clark Center- Roberts Room

Plenary Session - Marshall Auditorium:

0825 Call to Order and Admin Comments
 0830-1000 Keynote Speaker Lt. Gen. (Ret.) Joe Inge
 1000-1015 Break
 1015-1100 Presentation: The CGSC HLS Studies Program – Mr. Steve Tennant, CGSC Assistant Professor
 1100-1115 Break
 1115-1200 Presentation: Homeland Security Workforce Education Needs- Kansas State University’s Response-moderated by Charlie Griffin, K-State University
 • Dr. Cheryl Polson – Proposed Homeland Security Graduate Certificate Program
 • Dr. Curtis Kastner and Dr. Abbey Nutsch – National Center for Food Protection and Defense
 • Dr. Gurdip Singh – Center for Information and Systems Assurance
 • Craig Beardsley – National Agricultural Biosecurity Center
 1200-1215 Break
 1215-1315 Working Lunch with Guest Speaker: Maj. Gen. Lee Tafari, Kansas Adjutant General, with introduction by Dr. Carol Shanklin, Dean of the Graduate School, K-State University
Complimentary Lunch provided by the CGSC Foundation, Inc.

Concurrent Sessions - Marshall Auditorium and Lewis and Clark Classrooms

1330-1420 Concurrent Sessions (Lewis & Clark Center Classrooms)
 1420-1430 Break
 1430-1530 Concurrent Sessions (Lewis & Clark Center Classrooms)
 1545-1600 Wrap up and Concluding Remarks (Marshall Auditorium)
 1600 Symposium Concludes – CGSC Foundation, Inc., with cooperation and input from K-State and CGSC, will prepare a report of the symposium for distribution after the symposium.



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Concurrent Sessions

Concurrent Sessions were offered to attendees as educational opportunities to learn about topics of interest and discussion. Attendees self-selected sessions by signing up the day of the event. The sessions were limited to 32 participants to encourage discussion.

March 15, 1330-1420

Marshall Auditorium - FEMA Disaster Support: Now and into the Future

Panel Moderator: Beth Freeman, Regional Administrator, DHS/FEMA Region VII

Panel Members:

- Dan Best, Director, Response Division, DHS/FEMA Region VII
- Tom Costello, Director, Recovery Division, DHS/FEMA Region VII
- Phil Kirk, Federal Preparedness Coordinator/Director, National Preparedness Division, DHS/FEMA Region VII

Room 3318 The Biological Threat: Complex issues, Complex Solutions

Dr. Jerry Jaax, K-State University

Room 3327 Preventatives in Homeland Defense

Ms. Heather Karambelas, CGSC Instructor

Room 3130 Lessons in Societal Resilience from the Military Experience

Mr. Bert Tussing, U.S. Army War College

March 15, 1430-1530

Marshall Auditorium How the U.S. Army Supports Civil Authorities

Mr. Rich Berkebile, CGSC Assistant Professor

Room 3103 Cyber Threats and Security in the Information Age

Dr. Ximing (Simon) Ou and Dr. Eugene Vasserman, K-State University

Room 3106 Interagency Collaboration by Design: A Case Study of U.S.-Mexican Border Violence

Dr. Alex Ryan, Assistant Professor, School of Advanced Military Studies

Room 3130 The Franchising of Al-Qaeda and the Radicalization of Domestic Terrorism: The Changing Reality of Domestic Threats

Dr. Craig Stapley, K-State University

Presentation Summaries

Keynote Address

Presented by Lieutenant General Joe Inge, U.S. Army, Retired

Summary by Dr. John Persyn, U.S. Army Command and General Staff College



In his keynote address at the Homeland Security Symposium, Lt. Gen. (Ret.) Joe Inge highlighted the critical contribution that homeland security efforts play in a democratic society. He briefly reviewed the history of military involvement in homeland security and homeland defense by tracing his own participation throughout his career as an Army Officer: in 1969 as a young lieutenant, he was called to support the General Defense Plan response to riots in Washington, D.C.; later, with 1st Cavalry Division responding to the Haitian refugee crisis; and finally, as the Deputy Commander for the newly established U.S. Northern Command (USNORTHCOM). He noted that the recent developments in the homeland defense and security organization represent a significant achievement and that the establishment of USNORTHCOM and the creation of the Department of Homeland Security “have been incredible to move the preparedness of our land forward.”

Gen. Inge reminded attendees that homeland security directly supports the core unalienable rights that Thomas Jefferson penned in the Declaration of Independence: life, liberty, and the pursuit of happiness. “When you are participating in a cleanup after a disaster, you are saving lives, relieving suffering, and helping to get back to normal as quickly as possible to increase happiness.” He asserted that our nation does this better now than ever before. He highlighted the contemporary focus by governments at all levels on saving lives, as contrasted with earlier events in our nation’s history in which they did not do as much about it. For example, there was no federal response to mitigate the loss of lives during the 1927 Mississippi River floods that killed thousands; nor was there a federal response to relieve suffering for the millions who were forced to move from the Great Plains during the 1935 Dust Bowl.

Describing the essential knowledge to succeed in games, Gen. Inge listed three fundamental requirements: “know the rules of the game, know the players, and know what game you’re playing.” In homeland defense and security, the rules are such things as the Insurrection Act, the Stafford Act, and the National Response Framework; the players include the hundreds of organizations and agencies, public and private, who have roles in the process; and the name of the game is Democracy. “It’s important in a democracy that the people think the institutions of government from local through national are doing their part and working together in a harmonious way, particularly in time of disaster.” Gen. Inge recommended a “to do” list to accomplish before you are in a response situation:

- Know what the problem is. Don’t let the problem manage you.
- Understand your mates on the ground and their responsibilities. Discussions must be about finding solutions, not finding fault.
- Understand that all disasters are different. Do not get stuck on one kind of natural or man-made disaster. Know how to contact the experts. It is too late to be exchanging business cards at the disaster site.
- Make use of local businesses. Look at examples like Wal-Mart and Home Depot whose stores have resources that may be useful and may contribute to the effort even if the stores cannot be opened for business.
- Know what is expected of you when you get there. Don’t show up without a message. Don’t bring unnecessary resources.

Finally, Gen. Inge cautioned attendees not to forget that the reason for the significant developments in homeland defense were the result of a thinking enemy intent on attacking our democratic way of life. The lines between homeland security and homeland defense are often blurred. Future effectiveness will require a holistic approach across both domains. To prepare future leaders in this environment, he challenged attendees to “Teach those young people behind you to think larger than just the little piece they’re going to fix. Otherwise, all they’ll be doing is fixing little pieces and somebody else will be managing the problem for them.”

CGSC Homeland Security (HLS) Studies Program

Presented by Mr. Steve Tennant, Assistant Professor, U.S. Army Command and General Staff College

Summary by Mr. Richard E. Berkebile, Assistant Professor, U.S. Army Command and General Staff College

Mr. Steve Tennant, Department of Army Tactics, informed symposium attendees about homeland security education efforts within the U.S. Army Command and General Staff College (CGSC). He summarized the development of CGSC homeland security education programs and described the current opportunities for graduate education in this vital area of study.

Tennant outlined the history of the CGSC Homeland Security Studies Program (HSSP) and the progress and challenges in delivering homeland security-centric education in a military institution. Although the current CGSC core curriculum only includes two hours of classroom instruction, the HSSP provides a strong educational foundation in homeland security through the robust electives program. Homeland security elective offerings have expanded significantly from a single elective in 1999 to the current set of eight electives, and two more under development, that are distributed across the teaching departments.

The CGSC emphasis in homeland security increased markedly in 2005 when the College joined the national Homeland Security and Defense Education Consortium Association. The following year, at an interdepartmental faculty meeting, Dr. Shawn Cupp, Department of Logistics and Resource Operations, proposed that homeland security education move beyond departmental deconfliction to synchronization of curriculum. That was the impetus for the current elective Area of Concentration. Tennant described the rapid progress as moving beyond the initial goal of synchronization to a level of synthesis that characterizes the present balanced and comprehensive homeland security education program. In 2007, then Deputy Commandant Brigadier General Mark O'Neil approved a Homeland Security elective Area of Concentration. That year also witnessed the development of a Homeland Security specialty area within the Master of Military Arts and Sciences (MMAS) program approved by Dean of Academics, Dr. Chris King. In 2008, the first inter-institutional collaboration between Kansas State University and CGSC began with a regional needs analysis workshop hosted at the Lewis and Clark Center. That year, Dr. King also approved the creation of a Homeland Security Studies Academic Award. The CGSC Foundation agreed to sponsor this writing competition to recognize outstanding CGSS and SAMS students for homeland security-related theses. In 2010, the first HSSP (and CGSC) elective was certified as joint education by Joint Forces Command. Tennant speculated that more will follow. Finally, in 2011 United States Northern Command authorized CGSC to grant DOD DSCA Phase 2 education credit to qualifying students.

Tennant noted the steady growth in student demand for homeland security education but pointed out that, in some electives, demand has outstripped the capacity to provide classroom seats. A significant and growing percentage of each CGSC class completes the Area of Concentration, which requires a minimum of three electives or an MMAS with a homeland specialty and a minimum of two electives. However, an even larger percentage of students take at least one homeland security elective.

In closing, Tennant shared his vision for the future of the HSSP. Specifically, CGSC would like to further collaborate with Kansas State University, increase the number of interagency students, maintain or expand interagency topics in the curriculum, encourage more faculty and student research, and explore the possibility of issuing Northwest Association of Colleges and Universities accredited graduate education certificates.



Homeland Security Workforce Education Needs: Kansas State University's Response

Presented by Mr. Charlie Griffin, Dr. Cheryl Polson, Dr. Curtis Kastner, Dr. Abby Nutsch, Dr. Gurdip Singh, and Mr. Craig Beardsley, Kansas State University

Summary by Dr. John Persyn, U.S. Army Command and General Staff College



Mr. Charlie Griffin moderated a panel discussion presenting Kansas State University's response to Homeland Security Workforce Education Needs. Mr. Griffin opened by providing a brief background of the University's increasing involvement in the homeland security education arena spanning the past four years. Griffin described how the University recognized the need for a broad approach toward homeland security education that would prepare people for the broad spectrum of homeland security work. He said, "We did the most important step in 2008—we asked you, and many like you to come here and tell us what people out there working in the field need to know....This is our opportunity to show you what we have done and make sure we're on track." He then introduced the panel members who outlined K-State's proposed Homeland Security Graduate Certificate Program and summarized K-State's vital role in homeland security education and research in the areas of food protection and defense, information and systems assurance, and agriculture and biosecurity.

Dr. Cheryl Polson, Associate Dean of the K-State Graduate School, described the progress in developing a homeland security graduate program that will meet the educational needs of homeland security professionals throughout the Midwest. Compared with other homeland security graduate programs offered across the country, the K-State Graduate Certificate Program represents a unique approach, incorporating some unique features tailored to meet the needs identified in a 2008 regional homeland security needs analysis workshop jointly sponsored by K-State and the U.S. Army Command and General Staff College. Acknowledging the many symposium members who had also attended the 2008 Workshop, Dr. Polson praised their earlier work:

"You should be impressed with yourselves. All the areas that you identified in the needs analysis workshop are imbedded in the eleven core areas that were just identified in 2009 [in the CHDS Model Curriculum Conference]. What a wonderful statement on where our two states (Kansas and Missouri) are in understanding what we need in homeland security education."

Building on feedback gathered from homeland security leaders, stakeholders and practitioners attending that workshop, K-State program developers created a set of four new core courses, specifically tailored to those expressed needs: Foundations of Homeland Security, Homeland Security Threats, Organizations Amid Crisis, and Homeland Security Processes and Management. Additionally, the proposed graduate certificate program capitalizes on the unique opportunities available to enhance the educational experience of its participants. These include combining the expertise and resources of civilian and

military institutions and regional special-use facilities. By integrating military and civilian homeland security professionals in classes, students will have an opportunity to develop the interagency coordination skills and relationships that will serve them well in future homeland security or emergency management situations. Finally, Dr. Polson previewed K-State plans to expand the graduate certificate program by building a companion master's degree program. That program would include the four certificate program courses and one additional course, Homeland Security in Practice, to form the 15 credit-hour core curriculum. Fifteen additional credit hours would be offered in specialized tracks to complete the 30 credit-hour master's degree requirement.

Panel members Dr. Curtis Kastner and Dr. Abbey Nutsch addressed the Food Safety and Defense Educational Initiatives at K-State. Dr. Kastner, Director of the Food Science Institute, described the University's involvement in food safety research dating back to the mid-seventies. Initially focused on biological and chemical agents and how they may impact the food system, their research has expanded to also address issues relating to whether incidents or occurrences happen accidentally or intentionally. Thus, the Institute's expertise logically extends into the food protection and food defense area and illustrates why the K-State Food Science Institute is now an educational theme leader for the Department of Homeland Security's Center of Excellence in this area, the National Center for Food Protection and Defense.

Dr. Nutsch emphasized the importance of food safety, security and defense. To highlight the potential threat posed by foodborne hazards, she cited a 2011 Center for Disease Control estimate that one in six Americans suffer from foodborne illnesses each year, resulting in approximately 3,000 deaths annually. In many cases these illnesses and deaths occur despite the many food safety measures in place to prevent accidental food contamination. However, preventative food safety measures are often not effective for situations of intentional contamination. Food and agriculture is an attractive target for would-be aggressors due to the multiple potential access points in the "farm-to-fork" continuum and the potential to reach a large number of victims before being detected. As Dr. Nutsch pointed out, "If we were to intentionally contaminate ground beef with a particular chemical agent, we could actually have on the order of hundreds of deaths before we realized what the product was or what the agent was."

Dr. Gurdip Singh, Department of Computing and Information Sciences, described the Center of Information and System Assurance at K-State. This center has been designated the national center for academic excellence in cyber security research by the National Security Agency and the Department of Homeland Security. Dr. Singh provided an overview of some of the new and evolving challenges to cyber-physical systems that result from the rapid proliferation of social networking and increasing reliance on information technology systems. Dr. Singh also highlighted the challenges relevant to the Department of Defense in supporting Information Centric Warfare and the constant tension between aggressively providing information and preventing access to unauthorized parties. He described the research efforts being conducted at K-State to identify ways to improve automation of cyber information access controls to ensure that the information is available to those who need it—and only those who need it.

Mr. Craig Beardsley, Program Administrator for the National Agricultural Biosecurity Center, described the mission of the NABC to "develop, coordinate, implement, and leverage a broad range of programs and capabilities to address diverse threats to the U.S. and world agricultural economy and food supply." To accomplish its mission, the Center participates in several projects for federal, state, and local governments. These include response planning and exercises in the U.S. and overseas including recent work with the Kansas National Guard and Armenia. A key capability currently being leveraged is the Biosecurity Research Institute, established in 2008 and housed on the K-State Campus. This state-of-the-art facility conducts critical research that cannot be conducted anywhere else in the world. As Mr. Beardsley expressed, "We have a whole cast of characters out there that want to do bad things to us, and we have to recognize that in our planning and operations." Kansas State University is contributing significantly to this effort in areas vital to homeland security through its nationally recognized educational and research programs. The proposed graduate certificate program integrates these and related capabilities into a quality, broad-based program that prepares homeland security professionals for the broad spectrum of roles, responsibilities, and challenges they face in the complex homeland security environment.

Working Lunch Address

Presented by Major General Lee Tafanelli, Kansas Adjutant General

Summary by Dr. John Persyn, U.S. Army Command and General Staff College

Maj. Gen. Lee Tafanelli opened by noting that the future success of homeland security education will be based on a model represented by the symposium, through which homeland security experts and the multitude of partners all come together to solve the issues that we face. As he pointed out,



“No single entity can do it alone. When you look at where we’re headed with the budget, you’ll see why it’s important that everyone leveraging their own particular skill sets and coming together in an interagency and multidisciplinary approach is going to be the way ahead.”

Gen. Tafanelli’s past experiences with the K-State Ag-Bio Security Center, with the National Guard, and as a state legislator provided the basis for his remarks regarding the funding challenges for homeland security and related programs through the next 15 to 20 years. Gen. Tafanelli

described the future fiscal stress as a “budget tsunami” which will have far-reaching impacts on homeland security: “I can tell you that managing everything in 2011 is really tough, but it is nothing compared to what the future is over the next 15 to 20 years.” The future will be characterized by dramatically fewer resources to handle the threats and challenges. In 15 years, the estimated price tag for all obligated spending will be between \$80 and \$100 trillion, as compared with the current cost to run the entire federal government of \$14 to \$15 trillion annually. By 2017, the U.S. debt interest will exceed the Department of Defense budget. Clearly, this model is not sustainable without significant increases in federal taxes, major reductions in federal spending, or dramatic, long-term growth in the gross domestic product. Adding to the challenge are such issues as pension underfunding and budget deficits at the state level. These factors prompted Maj. Gen. Tafanelli to predict that public safety, and the associated homeland security and emergency management areas will not escape the inevitable budget cuts.

To prepare for this future, we must think about how we will continue to provide essential public safety services with a third to a half of the funds we have grown accustomed to in the past several years. Gen. Tafanelli recommended that we can best prepare by focusing on four main areas: threats and trends; organizational structure, individual development, and interagency culture. Success will require that we make sure we are best structured to deal with the threats. This may require that we restructure our priorities and stop doing some of the things that are not absolutely critical. Collaboration between agencies, between levels of government, and between the public and private sector, will be necessary. We must train our staffs and our partners to ensure they have the highest state of readiness, highest degree of preparedness, and broadest frame of reference to handle a particular event, and we must share information more effectively. Additionally, we must develop an interagency culture by working with other agencies on a routine basis. We should also look at unused resources such as land grant universities, extension services, military centers of excellence, and experts from the private sector to solve the problem.

Finally, Gen. Tafanelli closed by reminding attendees that the symposium is an important step in the process: “The key to all of this will be our ability to build new and lasting partnerships outside of the familiar and comfortable organizational walls.”

The Biological Threat: Complex Issues, Complex Solutions

Presented by Jerry Jaax, DVM, ACLAM, Col., U.S. Army, Retired, Kansas State University

The presentation discussed the genesis of, and specifics of the current biowarfare, bioterrorism, and agro terrorism threats. It discussed the shift in facilities and programmatic emphasis away from infectious disease during the late 1960s and 1970s. That shift has caused much of the national urgency of trying to reinvigorate infectious disease research programs and facilities.

The Bio threat is rapidly



evolving with a plethora of agents that are in play. The zoonotic diseases dominate the threat spectrum and pose many difficult and unique challenges for national planners and researchers. Not only do the zoonotic diseases largely exist in nature where they are often available for acquisition or procurement by would-be terrorists or rogue state sponsored programs, there is lingering concern about cold war-era offensive biowarfare programs and possible proliferation. This proliferation concern would include that of scientists or technical personnel, biowarfare technology, and/or access to classic cold war or genetically enhanced or modified biological agents. Examples of several cold war offensive biological warfare programs were discussed, with the intent of framing how these old programs still pose a plausible public health and/or national security threat to the U.S.

A significant subset of the biological threat involves the possible use of agricultural pathogens as weapons. In this context, they would have utility as economic weapons for potential enemies of the state. As stated by Dr. Jon Wefald, the former President of Kansas State University, “The great engine of our prosperity in the United States is our ability to produce food that is safe, inexpensive and plentiful, and the discretionary spending generated as a result of our efficient food industry is a primary driver in the basis for and the maintenance of our standard of living in the U.S.” It is certain that degradation of the efficiency of our agricultural food industry through the introduction of exotic or emerging pathogens, and the resultant increase in prices or availability of food would have a tremendous effect on our national security.

There was an in-depth discussion of the significant challenges associated with rebuilding high hazard infectious disease biocontainment research infrastructure in the U.S. The presentation centered on the sometimes contentious atmospherics surrounding the award of a new Department of Homeland Security (DHS) National Bio and Agro Defense Facility (NBAF) in Manhattan Kansas. The basis for the national need for the new state-of-the-art \$750 million dollar was discussed, with a focus on the need to counter exotic, emerging, or intentional disease threats to our agriculture.

Preventatives in Homeland Defense

Presented by Ms. Heather Karambelas, Instructor, U.S. Army Command and General Staff College

Summary by Mr. Richard E. Berkebile/Assistant Professor

Is an ounce of prevention worth a pound of cure? That was the question discussed by a diverse group of attendees representing the health care, emergency response, law enforcement, academic, commercial, and military communities. Ms. Heather Karambelas presented the approach to prevention taken in a new Command and General Staff College elective titled Preventatives in Homeland Defense.

As elective author, Karambelas’ extensive background in intelligence was evident in the design of the curriculum. The elective will address topics such as environmental “indicators and warnings,” individual behaviors from people both inside and outside the Department of Defense, attack profiles, civil-military and federal-state-local cooperation in Joint Terrorism Task Forces and Intelligence Fusion Centers, and current applications by command and legal practitioners. In the near future, mental health professionals will be added to the guest speaker lineup. Of particular note, the elective includes the often overlooked “insider threat.” Karambelas believes inclusion of the insider threat was crucial, citing the case of the Fort Hood massacre in 2010. For identifying insider threats, Karambelas borrowed heavily from the science of psychology in curriculum content. The idea for an elective built around the theme of prevention was inspired by an observation by Deputy Commandant Brigadier General Sean B. MacFarland that “left of boom” activities were underrepresented in CGSC homeland security and defense electives. In other words, a mental framework that includes prevention in addition to response is an efficient, albeit complex and difficult, element of homeland security. The risks are simply too high to ignore prevention.

Attendee Ted Strickler, of the Simons Center for interagency cooperation, raised the topic of measuring success and the risk of errant conclusions in identifying potential threats. Karambelas acknowledged that measurement of preventions was challenging and in many cases ultimately unknowable. Nevertheless, Karambelas emphasized that common characteristics of attacks and clear indicators in past cases make prevention an uncertain but not impossible task. Addressing the opportunity for prevention itself is a crucial first step, Karambelas believes. The risk of errant conclusions or “false positives” inspired a lively discussion among the attendees encompassing topics ranging from human rights to law to what constituted “suspicious behavior.” Attendees achieved consensus on the need and value of prevention, notwithstanding disagreement on the process of how to do it. Lieutenant General (retired) Rich Keller commented that understanding the problem was not sufficient. He opined that the motivation to act on suspicions was also a necessary component of prevention. Finally, participants commented on the breadth of man-made threats to the United States compared to scope of educational outcomes possible in a 24 classroom hour course. Karambelas agreed and pointed out that three CGSC electives are dedicated to different aspects of the contemporary threat and another three address niche aspects of threats.

Lessons in Societal Resilience from the Military Experience

Presented by Col. Bert Tussing, U.S. Army, Retired, U.S. Army War College



The American Psychology Association has identified certain factors, which contribute directly to what could be described as “individual resilience.” Among these are a person’s general view of the world; a sense that the world is a coherent, reasonable, and ordered entity; a person’s perspective of their place and importance in their community; adaptability to

changing circumstances; personal mastery in maintaining or attaining ownership of one’s fate in the face of those changing circumstances; and a tendency to take an active part in coping with stress, rather than passively awaiting an eventual outcome. These factors are what psychologists indicate will assist individuals—and the societies they populate—in dealing with and recovering from adversity.

And—these are factors which the military instills in its service members. Through a tradition of resistance and resilience, the military’s leadership—up and down the chain of command—enables and empowers its soldiers, sailors, airmen and Marines with a sense that stresses and challenges that characterize adversity are predictable, inevitable, and capable of being overcome. Among traditions that contribute to these ends are an advocacy and example of hardiness in leadership; trust and communication in the command environment; and a shared dependency among soldiers that ties an element of resiliency to personal responsibility.

“Hardiness” connotes an attitude that life is meaningful; that we have a say in the outcome of our future; and that stress is a natural part of existence, to be expected and occasionally even welcomed. Engendering hardiness, however, calls for us to move beyond simply acknowledging stress, to identifying and addressing its negative impacts. In fact, a significant measure of leadership in the military has been in addressing corrosive elements of stress (e.g., isolation, ambiguity, boredom, alienation, powerlessness and danger), and reducing, negating, or turning their effects to a positive end. In doing so, military leadership is capable of replacing these “negatives” with the essential elements of cohesion, shared values, mutual respect and trust. Experiences, positive or negative, are nevertheless shared experiences, whose debilitating impact is absorbed in a community that recognizes and promotes the value of the individual to the team, and the team to the individual. The embedded resiliency in this atmosphere thus takes on a value beyond the intuitive benefit to individuals, to a responsibility among individuals. This, in turn, provides for a resiliency in the unit reflective of the resiliency of its members.

Amid growing concerns over the resilience of the American people in times of disaster and catastrophe, lessons may be garnered from the military’s experience. While every analogy may not be direct, parallels may be drawn and examples merited. Preparation and execution on the field of battle have validated the military’s lessons, but adversity is hardly limited to the battlefield. Neither is the need for strength to persevere.

Cyber-Threats and Security in the Information Age

Presented by Dr. Xinming (Simon) Ou and Dr. Eugene Vasserman, Kansas State University

In a dual-speaker session on cybersecurity, Drs. Vasserman and Ou from Kansas State University spoke about pervasive cybersecurity threats in our everyday lives and the cybersecurity education approaches currently adopted by K-State.

Eugene Vasserman spoke about the pervasive threats component, covering topics ranging from familiar virus and worm “outbreaks” to highly-targeted tailored malware, phishing, and social engineering attacks. “Just as we all notice and report street crime, we should all be vigilant in our virtual environment,” he said. Everyone, no matter what their prior education or current job, should be aware of the cyber-threats around them. While cybersecurity “blindness” is partially the result of improper design of security warnings, it is nonetheless an important current education problem: we cannot wait for software designers and researchers to improve systems. Our current workforce, composed of people with varying computer knowledge, need to receive training in basic awareness and best practices to deal not only with current threats, but unknown future hazards as well. Most people will not immediately remember security lessons, and will not internalize them for a long time, so cybersecurity awareness training needs to be interwoven in the long term throughout college and on-the-



job training. “If you take away nothing else from this presentation,” Vasserman said, “you should remember to pick good passwords, not write them down, and don’t be afraid to say ‘no’ to requests to violate security policy.” Vasserman’s research deals with broad aspects of distributed system security, including privacy and anonymity, censorship resistance, as well as embedded and cyber-physical systems.

Xinming Ou spoke about the cybersecurity education approaches at K-State. “We design our curriculum so that students have hands-on experience in both the defense and offense aspects of cybersecurity,” said Ou.

He demonstrated a number of software exploits targeting real systems, including a music player and the Internet Explorer web browser. In both cases, after a user clicks a link to a maliciously crafted input, the program’s execution is hijacked and a remote attacker

gains full control of the user’s machine. He then turned the tables and attacked the web server that hosted the malicious contents, showing the audience that he could compromise the web server and deface the hosted web pages. “Seeing is believing,” said Ou. “Even though many of our students already know these attack methods, they are always amazed when seeing how they work, and excited that they can write an exploit themselves.” These course materials are modularized so that they can also be used in security education targeted at the general public. According to Ou, K-State plans to design a series of four cybersecurity courses for student bodies with various degrees of technical sophistication. The curriculum will be designed in lesson plans and hands-on modules like the ones demonstrated during the session, and can be tailored to students with varying degrees of technical depth. K-State has already been using material from existing cybersecurity courses as part of outreach activities. In one example, Ou mentioned his experience of teaching middle school-aged girls how to attack a web server. “They are always more excited about attacking,” Ou said. “Once they compromised the web server,” he said while laughing, “they would use it to leave all kinds of nasty notes about me.”

Interagency Collaboration by Design: A Case Study of U.S.-Mexican Border Violence

Presented by Dr. Alex J. Ryan, School of Advanced Military Studies

Interagency collaboration is difficult for a number of reasons. Different agencies have different values, interests, cultures, and professional languages. They bring to any attempt at problem solving different experiences, different processes, different concerns, and different time scales. Despite these challenges, interagency collaboration is essential for improving messy real world situations. No single agency can secure improvement in isolation from the efforts of other cooperating agencies. The current Mexican border violence is an example of a problematic situation where interagency and international collaboration is essential to progress. This presentation demonstrated how the recently developed Army design methodology has broader applicability to issues involving interagency collaboration. By illustrating a concrete example of design thinking, this presentation provided an accessible introduction to the Army design methodology.

Applying design, it is shown that the symptoms generating the headlines for the so-called “drug war” are driven by the fear of spill-over violence, but run much deeper to include unresolved value conflicts in American society. This includes conflict between the values of the individual drug user and society, between life and liberty (casualties of drug violence versus the right to bear arms), and between protecting national security and respecting international sovereignty. Understanding the systemic causes of border violence involves mapping the dynamics of the conflict, which includes interacting positive and negative feedback loops between drug use, cartel profits, Government corruption, violence, and arms trafficking. Examining the “system of opposition,” the Drug Trafficking Organizations (DTOs) and their base of support, exposes designers to a different perspective from which to appreciate the current U.S. strategy. The DTOs operate with a profit motive, are geographically differentiated, and dynamically cooperate and compete with one another for power and influence. They extract power and profit from the licit economy using violence and corruption to protect transportation routes for commodities that are both valuable and illegal.

The current U.S. counter-drug strategy emphasizes short-term interdiction of supply, which has little or no long-term

effect on the system. Likewise, action against the DTOs targets individuals, which has little effect on the organizations or the ecology. International collaboration is hampered by mistrust between the Mexican and U.S. Governments, largely a result of lopsided international relations between the nations dating back to the Treaty of Guadalupe Hidalgo in 1848. Meanwhile, the underlying value conflicts remain unacknowledged and unresolved. Potential exists to improve the situation by building trust, eroding the profitability of DTO operations, and acting against cultural influences. Efforts to reduce the glamour and tolerance of drug use in the U.S., and the passive acceptance of DTO activities in certain regions of Mexico, are essential to securing improvement. A new strategy requires an integrated approach between demand-reducing and supply-reducing activities, as well as new interagency organizational structures and incentives tailored to this unique situation.

McTerrorism: The Franchising of Terrorism and the Radicalization of Domestic Terrorists

Presented by Dr. Craig Stapley, Kansas State University

“Traditional” terrorist organizations have often had a similar organizational structure to many military organizations: namely, a clear organizational structure that is hierarchical in nature with clear lines of bilateral communication, command and control, logistics, training and financing. This kind of organizational structure carries with it certain advantages and disadvantages. Clearly, the advantages allow for the execution of complex, large scale operations like the Cole bombing and the September 11 attacks. Pre-September 11 Al Qaeda, as well as the Tamil Tigers, exemplifies groups with this type of organizational structure.

With the entrance of the United States into the War on Terror, many terrorist groups, especially Al Qaeda post September 11, were forced into evolving into a new organizational structure. The United States and her allies in the War on Terror were successful in eliminating the middle levels of the hierarchical structure by physically rolling up the organization in their initial attacks in Afghanistan. This was also forced through coalition successes in closing down the international financing network of Al Qaeda through international cooperation. Technological operations were also effective in limiting the lines of communication between the highest echelons of Al Qaeda and the lower level foot soldiers.

Because of these imposed external constraints, Al Qaeda evolved into a new structural organization. This new structural organization takes on the characteristics of a franchise with the higher echelons providing the ideological message and “branding,” while the lowest level foot soldiers become the “McTerrorists,” taking that general ideology and “brand” of Al Qaeda and staging much less capable attacks because they lack the training, financing, and logistics of a large hierarchical structure. Often, these McTerrorists are getting their training online, self-financing through things like credit card fraud and petty crime, and executing attacks of which the higher echelons may have absolutely no knowledge. Indeed, there are examples of some of these franchised Al Qaeda groups executing attacks that became counter-productive to the Al-Qaeda brand. Perhaps the best examples were the operations conducted by AQI (Al Qaeda in Iraq) under the direction of Abu Musab Al-Zarqawi. When those operations began to become counter-productive to the general Al Qaeda brand, Al Qaeda second in command Ayman Al-Zawahiri actually sent communiqués to Zarqawi asking him to limit operations. We have several examples of regional Al Qaeda franchises coming into existence: AQI, AQ in the Arabian Peninsula (which is now competing for leadership of the brand), AQ in the Islamic Maghreb; Harakat al-Shabaab Mujahideen in Somalia as well as individual lone wolf McTerrorists who are identifying with Al Qaeda based on online ideological branding. This organizational evolution is also evident in the Earth Liberation Front, Animal Liberation Front and groups identifying with the Turner Diaries.

Advantages of these new franchised terrorist groups for the terrorist groups are the difficulty in effectively combating the lowest levels effectively due to the fact that they are smaller with much more limited informational flows, limited financing trails, and the franchises are isolated one from another so security is better. Of course, the franchises are also much less capable of executing sophisticated, large scale attacks due to the lack of training and resources of which the larger hierarchical organizations were capable.

The consequences of terrorist organizational evolution are significant, especially in light of counter-terrorism efforts. We can expect to see less complex, large scale attacks and more local, domestic based limited attacks like the Major Nidal Hassan attack. With the new McTerrorists, the onus of counterterrorism will devolve primarily to local law enforcement and the citizenry.





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