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SUPPORTING PROFESSIONAL MILITARY EDUCATION IN THE HORN OF AFRICA: ETHIOPIAN DEFENSE COMMAND & STAFF COLLEGE

*Professor Bernard F. Griffard
Operations and Gaming Division, CSL*

Influencing tomorrow's leaders is always a challenging proposition. Who are they? What is the best vehicle for success? A proven tool for addressing both of these questions is Professional Military Education (PME). Most nations identify their best personnel for foreign and domestic PME opportunities. Primary vehicles used by the United States to expose these foreign military personnel to the U.S. military's professional ethos are International Military Education and Training (IMET) and Foreign Military Sales (FMS). These programs provide opportunities for international officers to attend U.S. PME institutions. Over the past three years a new instrument was added to this toolbox.

Since 2007, initially supported by U.S. Army Central (USARCENT), and since October 1, 2009, U.S. Army Africa (USARAF), a team of U.S. Army Reserve Command and General Staff College instructors have been assigned to assist the Commandant of the Ethiopian Defense Command and Staff College (EDCSC) establish their program, and to train a faculty cadre of Ethiopian officers. Over the duration of this program U.S. Air Force instructors have periodically augmented this team. One of the key accomplishments of this cooperation has been the establishment of faculty exchange relationships with U.S. PME institutions. This access to subject matter experts was well received by the EDCSC leadership and will outlast the assistance program which finished its mission at the end of June 2010.

In support of the USARAF and the United States Africa Command (USAFRICOM) EDCSC assistance program, Prof. Bernard F. Griffard, Center for Strategic Leadership

(CSL), U.S. Army War College (USAWC) presented two "Economic Impacts of Defense Strategy Development" lectures to the senior course students during the 7-10 June 2010 timeframe. Looking at economics both as a "hard" and "soft" power tool Prof. Griffard highlighted its role in the development and execution of a national strategy. This was the third seminar presented by the USAWC at the EDCSC over the past year.

— CSL —

SERBIAN ARMED FORCES TRANSFORMATION: HUMAN RESOURCE MANAGEMENT PROCESSES

*Professor Bernard F. Griffard &
LTC Vincent R. Lindenmeyer
Operations and Gaming Division, CSL*

With the peaceful breakup of the Montenegro-Serbia confederation in 2006, the entity of Yugoslavia disappeared from the maps of Europe. What was once a unified military force, the conscript-based Yugoslavian National Army (JNA) was now distributed across six independent Balkan states. This distribution was based on geography and ethnicity, not military capabilities or expertise.

Within the Balkan region there is a shared desire for integration into the European Community. A prerequisite for such integration is the modernization of the national security apparatus. For this reason, Serbia, like their neighbors in Bosnia Herzegovina, Montenegro, and Macedonia, has a certain urgency to transform its national armed forces. This transformation includes the modernization of equipment and increasing the professionalism of their armed forces including the elimination of conscription. To assist in this transformation to a professional, all-voluntary military, the Serbian Armed Forces (SAF) are tapping into both European and U.S. expertise for ideas on creating an effective and efficient Serbian Human Resource Management (HRM) system that achieves modern standards and exhibits real capabilities.

For those who may not associate a series of expert talks on HRM systems with the strengthening of defense relationships in the Balkans, this event was a solid reminder of the importance of military to military (M2M) security cooperation initiatives within the U.S. European Command (USEUCOM). The multi-service U.S. Army War College (USAWC) Traveling Contact Team (TCT) consisting of Professor Bernard F. Griffard, CSL; Commander Traci Keegan, USN, DCLM; and Lieutenant Colonel Vincent R. Lindenmeyer, CSL, traveled to Belgrade, Serbia 21-26 March 2010, and exchanged insights on human resource management processes with SAF and Ministry of Defense (MoD) personnel who are dealing with difficult force transformation challenges on a daily basis.

The major challenges they face are the abolition of general conscript duty, the rebalancing of the force to reflect the desired officer, NCO, enlisted and civilian ratios, development of a modern professional military education system, and the achievement of social status improvement for SAF personnel. During the three days of discussions the USAWC TCT addressed the SAF challenges within the context of the HRM Life Cycle Model's six objective areas: Acquire, Develop, Utilize, Sustain, Promote, and Transition. The dialogue encouraged the SAF personnel directorate officers to begin crafting a human capital strategy and leader development strategy as the next step for their personnel management transformation.

Over the past three years the USAWC has enthusiastically supported USEUCOM and the other Combatant Commands' military to military programs. The unique pool of expertise extant within the USAWC is a fairly low cost alternative to other engagement resources, and allows faculty to travel in their geographic areas of interest and to assess the political-military environment first hand.

— CSL —
INFOWARCON 2010

Professor Dennis M. Murphy
Information in Warfare Group, CSL

The InfowarCon 2010 Conference: "Future Warfare Today: The Battle for Information & Ideas," took place May 12-14, 2010 at the Washington Convention Center in Washington, DC. Sponsored by the Information Operations Institute of the

Association of Old Crows, in partnership with the National Defense University, InfowarCon 2010 highlighted future warfare, specifically as pertains to the battle for ideas and information.

Dialog occurred in a number of presentations and panels over three days arguing that future warfare will be idea and information based, and not restricted to conventional hard-kill military operations. It further argued, in many cases, that our governments are not manned, equipped nor organized to win such ideological struggles.

InfowarCon presenters and attendees included approximately 300 corporate executives, government officials and military leaders interested in the information element of power. Topics ranged from "New Media in the 'New' Information Battlespace" to "Exploiting Commercial Cyber Intelligence."

Professor Dennis M. Murphy, Director of the Information in Warfare Group, Center for Strategic Leadership, chaired a panel and presented on "Israel and the Information Element of Power" during InfowarCon 2010. Other members of the panel included: Yarden Vatikay, Director, National Information Directorate, Office of the Prime Minister of Israel; Noam Katz, Minister of Public Diplomacy, Israeli Embassy to the United States; and Dr. Michael Dahan, Sapir Academic College of Israel.

All of the speakers focused their remarks on the information aspects of Operation Cast Lead, the Israeli incursion into Gaza from December 2008 to January 2009. Professor Murphy's remarks were drawn from an article he co-authored entitled "Learning to Leverage New Media, The Israeli Defense Forces in Recent Conflicts" where he compares the failures of the Israeli military in the information environment during the 2nd Lebanon War of 2006 to their successes in that area during Operation Cast Lead. Mr. Vatikay's office, The Directorate of National Information, was established directly as a result of the 2nd Lebanon War failures. He provided significant first-hand insights into the effective use of social media, audience analysis, and risk analysis by the Israeli government that lead to successes in Operation Cast Lead. Mr. Katz, who was the Director of Public Diplomacy for the Israeli Ministry of Foreign Affairs from 2007-2009, was equally adept at presenting, from first-hand knowledge, a perspective on the use of public diplomacy internationally during Cast Lead. Additionally, Mr. Katz

provided compelling data on an information campaign to turn public opinion in Spain in favor of Israel using a variety of techniques. Dr. Dahan conducted extensive exit interviews with Soldiers of the Israeli Defense Force after the 2nd Lebanon War. While the previous speakers focused on the opportunities provided by new media capabilities, Dr. Dahan discussed the threats, to include operations security, based on his research thus providing balance to the panel.

Participation in InfowarCon2010 serves to enhance the Center for Strategic Leadership's strategic communication to international and national audiences in the area of information in warfare.

— CSL —
ROBOTICS DAY 2010

***Mr. Bill Waddell &
Mr. Ken Chrosniak***
*Command, Control and Cyberspace
Group (C3G), STD, CSL*

The objective of Robotics Day is to ensure Army War College students remain informed on what's going on in the field; therefore, this day is designed to increase their awareness of existing and emerging robotic technologies in support of the National Military Strategy. The Command, Control and Cyberspace Group of the Center for Strategic Leadership sponsored the 7th annual Robotics Day exhibition on 28 April 2010. With the excellent assistance and cooperation of Carlisle Barracks Garrison personnel, Indian Field and the front entrance area of Root Hall provided ample area to display and operate many of the finest and innovative remotely operated unmanned robotic systems supporting our military forces today. Good weather provided an appealing background



Mobile Detection Assessment and Response System (MDARS) designed to perform patrols



Assorted Unmanned Ground Vehicles, including the armed TALON and MarcBot

for the over 400 attendees observing the presentations and displays, of both existing and emerging robotic systems, for use in both the military and civilian sector. An added benefit of Robotics Day is community outreach, which involved the attendance of area high school and college students and local dignitaries, who promote education in the physical sciences in order to maintain the lead in future robotic research and development.

Another purpose of the exposition is to ensure that participating emerging leaders are afforded increased awareness, however brief, as to the applicability and usefulness of these systems and how they may be incorporated in operational planning for mission enhancement. This is especially poignant at this particular time since back in 2000 Congress mandated that within a decade a third of all military ground vehicles and deep-strike aircraft must be robotic. The end of that mandate, with the incorporation of robots on the battlefield and their influence in operations, is now taking place. Robotics is an exciting, new, and continually changing technology field which is growing in numbers within our military and in the militaries of many foreign countries. Therefore, it is essential to prepare future leaders in the area of technological use of autonomous vehicles for land, sea or air, when preparing to incorporate them into a concept of operation.

Twenty robotic related exhibitors, representing commercial, governmental, and academia, provided exhibitions and demonstrations of their systems. Visitors and observers were able to operate and maneuver some of the remotely controlled vehicles, along with expert demonstrations of system capabilities. In some instances it became a two way street, as many of the exhibitors gleaned informative comments

and input from students and other visitors, which they may incorporate to refine their product to better support the mission sets. A new addition this year was the Federal Aviation Administration (FAA) approval to operate remotely controlled Intelligence, Surveillance, and Reconnaissance (ISR) aircraft in airspace over Indian Field, which included the RAVEN and PUMA. Additionally, D Troop of the 104th Cavalry Squadron (Pennsylvania Army National Guard), recently returned from Iraq in support of the 56th Stryker Brigade, shared experiences and displayed an actual SHADOW remotely piloted vehicle which provided extensive support to the ground missions in Iraq.

Some additional exhibited robots, designed to enhance the defense and survivability of our forces, were the autonomous and armed TALON IV robot, MARCbot, MAARS (Modular Advanced Armed Robotic Systems), Dragon Runner, Recon Scout and other vehicles. Additional exhibits displayed sensors and devices meant to enhance ISR, such as T-Hawk, Soldier-Eyes, and T-Rex. These systems were designed to expand the view of the battlefield from the tactical-level up to, and including, the strategic-level in order to provide commanders (and individual Soldiers) increased and extensive visibility of their battlespace in order to directly influence their decision-making process and mission effectiveness. Other demonstrated capabilities included both large and small autonomous ground vehicles, emergency ordnance disposal capabilities, medical robotic development, and defensive and offensive sensors and munitions.

These emerging strategic leaders and the community surrounding Carlisle Barracks had an opportunity to see firsthand that the robotic revolution is changing warfare.

As stated by Dr. P.W. Singer in his excellent work, *Wired for War*: “There is a difference, though, with robotics because every previous revolution technology changed the ‘how’ of war. It was a system that had a dramatically bigger boom like the atomic bomb, a system that shot dramatically faster like the machine gun, a system that allowed you to shoot farther like the longbow or the gunpowder revolution. That’s definitely happening with robotics, but these technologies are also changing not just the ‘how’ but the ‘who.’ That is, they reshape warriors’ experience and the very identity of warriors themselves. Another way of putting it is that humankind is starting to lose its 5,000-year old monopoly on the fighting of wars.”

The Army is presently working on developing doctrine on how to incorporate this new technology, which may well be the future of war. Dr. Singer further states: “Whatever doctrine prevails, it is clear that the American military is getting ready for a battlefield where it sends out fewer humans and more robots. And so, just as the technologies and modes of wars are changing, so are the theories of how to fight them. Thinking about what robot doctrine to use in warfare will not be viewed as ‘advanced’ for much longer.”

Again, thanks to the efforts and cooperation of the Carlisle Barracks Garrison and staff, the 7th annual USAWC Robotics Day was deemed a success by visitors and participating exhibitors. It met the objectives of the USAWC, and provided student and faculty, as well as the Carlisle Barracks community, an opportunity to experience and discuss the incorporation of autonomous systems for military and medical use in the future. Robotics Day remains an excellent venue to maintain senior level awareness on this addition to the Revolution in Military Affairs.

— **CSL** —

LEARNING AND ENTERTAINMENT EVOLUTION FORUM (LEEF) 2010

*Major Steven Toth
Operations, Strategic Experiential
Education Group, CSL*

The Strategic Experiential Education Group took part in Harrisburg University’s “Learning and Entertainment Evolution Forum” (LEEF), sponsored by Harrisburg



Conference attendee experiencing combat simulated in a virtual world

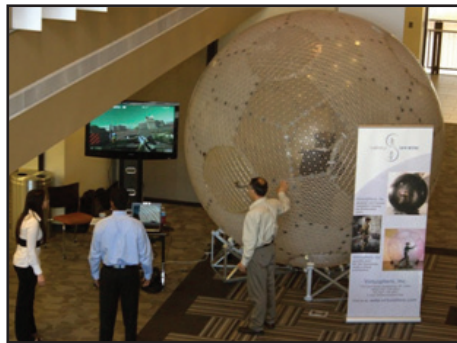
University's Science and Technology Department. This year's LEEF occurred 17-18 June, and was designed to explore the use of games, simulations and virtual worlds for learning. It looked at how tools can be successfully adopted, while addressing business and educational use objectives, design goals, and technical development needs. Demonstrating the effectiveness of games and simulations as an organizational learning strategy was the central theme of LEEF. This year's program also focused on how learning technology tools and corresponding techniques can be successfully integrated and implemented across learning organizations.

LEEF featured new perspectives from keynote presentations, practical applications and lessons learned from in-depth case study sessions, hands-on play with new and experimental technologies through high-tech demos, focused instructional workshops, one-on-one time with innovators

and entrepreneurs in the exhibitors area, and included plentiful opportunities for networking with the diverse array of attendees. A unique aspect of LEEF in contrast to other technology conferences is that LEEF focuses primarily on education. Most technology conferences showcase a particular genre or virtual training tool. LEEF brings together representatives from across the different realms of gaming and simulation technology and enables attendees to delve deeper into how these technologies can be used to enhance education.

There were approximately 70 people in attendance at this conference representing three branches of the armed forces, local businesses such as Giant, as well as many educators. There were two keynote speakers, 12 case studies, and three workshops over the two-day period. The exhibitor contingent was small with about seven booths.

The technology exhibitors were as diverse as they were encompassing, and included:



VirtuSphere, INC demonstrate their VirtuSphere virtual world



Members of the SEEG discuss possibilities of future technology use, with Harrisburg University of Science and Technology Alum

NexLearn (custom education courseware developer), JPL (developing innovative learning solutions to improve performance), Forio Business Simulations, IBM, Applied Research Associates (Virtual Heroes Division), Defense Acquisition University, Equipment Simulations LLC, Etcetera Edutainment, Inc., Tandem Learning, Novonics Corporation, Centrax Corporation, JPL, and Stockdale Center for Ethical Leadership, United States Naval Academy.

In summary, LEEF 2010 was a conference which offered a great deal of opportunity for the development of future experiential education efforts at USAWC. By enhancing contacts with both Harrisburg University and local commercial game and simulation developers, USAWC is in a better position to acquire and modify tools suitable for courses and Carlisle Barracks educational activities. (For further details see SEEG Information Paper, at: http://cbportal.carlisle.army.mil/sites/csl/seeg/Documents/SEEG_JUN2010_HULEEF.docx.)

This and other CSL publications can be obtained free of charge online at: <http://www.csl.army.mil>

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