February 2006

Taking Learning to the Field: Fort A.P. Hill Demining Equipment Demonstration

Sarah Sensamaust
Center for International Stabilization and Recovery at JMU (CISR)

Follow this and additional works at: https://commons.lib.jmu.edu/cisr-journal

Part of the Defense and Security Studies Commons, Emergency and Disaster Management Commons, Other Public Affairs, Public Policy and Public Administration Commons, and the Peace and Conflict Studies Commons

Recommended Citation
Available at: https://commons.lib.jmu.edu/cisr-journal/vol9/iss2/31

This Article is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Journal of Conventional Weapons Destruction by an authorized editor of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.
Legislation Department Thor Cletha, in America for the first time, explained his misconceptions. “I first thought the people are very proud. I thought before they were very controlling and wanted power. … I felt scared at first; I came alone and thought people would not accept me,” he said. “But in contrast, the people I met provided help with my problems. I’m very happy for all of this.” One example of this support, he recalls, was when his computer electrical adapter didn’t work; staff from MAIC found a replacement adapter and took him to the store where he could buy it.

Habib-ul-Haq agreed, saying the people he met were “friendly, supportive, helpful, honest, clear—opposite to what people often think of them abroad.” Gonçalves’ words were even stronger. “I have been to over 30 countries. American people may be the best in the world—the way they are, the way they interact. That was made more clear by the way they interact. That was made more clear by coming here. … I did expect to see some attention from people, but not as much as we did. We were all surprised with the way you have arranged this and been so supportive. You’ve been so kind and so supportive that we won’t forget.”

The participants were also eager to share their cultures and traditions with their fellow students as well as the staff running the course. Many brought gifts representing their home countries to present to their colleagues and the JMU staff. Many discussions were had during and outside of classes on differences in culture and religion, and in that respect, the students were teachers, too.

Jennifer Schraw, a student employee of the MAIC, shared an experience she had that had a profound impact on her. The Muslim participants invited her to attend one of the prayer services at the mosque they went to once a week during the course. “I was surprised as to how closely the message resembled what I grew up hearing in a Methodist church. It was amazing to experience another culture, try food with so many similarities,” she explained. “Throughout the entire course I was pleasantly surprised by the participants’ basic morals and desires, and how they reflected mine.”

Indeed, what was intended to be a chance for mine action practitioners to study management tools and techniques turned out to be a learning-experience for everyone involved.

For more information on the Senior Managers Course, please visit http://maic.jmu.edu/managers/ or contact Project Manager Amy Burkhart at burkhama@jmu.edu. 

See “Referrals and Endorsements,” page 107

**Notes from the Field**

A part of the Senior Managers Course conducted by the Mine Action Information Center during the summer of 2005, representatives from international mine action organizations had the opportunity to see the latest demining equipment demonstrations at Virginia’s Fort A.P. Hill. Watching from the bleachers in the mid-summer heat, the participants saw demonstrations highlighting over a dozen pieces of demining equipment ranging from detection to neutralization technologies. Their visit was hosted by the U.S. Department of Defense Humanitarian Demining Research, Development and Engineering Center, Night Vision and Electronic Sensors Directorate at Fort Belvoir, VA., as part of the Department of Defense Demining Research and Development Program Requirements workshop. Below are some of the highlights from the day-long presentation.

One of the first to show off its capabilities was the Rotary Mine Comb. Designed to be mounted on a commercial agricultural tractor, the RMC is a mechanical anti-tank mine clearer that can be operated manually or by remote control. Two rotors with four times countersintered and dig into the ground, gently lifting and moving mines from the path of the vehicle. Because the RMC is armored, it is capable of handling large anti-tank mines. Depending on the type of soil in the mined area, the RMC is reliable to 95.5 percent to excavate to 30 centimeters (12 inches) below the surface in heavy and 40 centimeters (16 inches) in lighter soils. With an estimated cost of $88,000 (U.S.), the RMC will be sent to HALO Trust in 2006 for use in Angola or Afghanistan.

Similar to the Rotary Mine Comb, the Tantra is designed for mechanical mine and vegetation clearance. The Tantra removes vegetation in hard-to-reach areas, making it useful in developing countries where roads are often less accessible. Reaching out from the vehicle is a 4.5-meter-long (15 feet) arm with a flail head that quickly clears vegetation and tripwires. The Tantra can obtain speeds up to 40 kilometers per hour (25 miles per hour) and is built to withstand the explosion of an anti-personnel mine.

After a quick stop under the military tent for cold water and sunscreen, participants progressed to the next site, where the NEMESIS was demonstrated. The NEMESIS, a manually or remote-controlled system, is designed specifically for detection and neutralization of anti-tank and anti-personnel landmines. It has a robotic platform for safe operation and capabilities for other quick-to-attach tools. A detection platform, backhoe, unexploded ordnance surface-cleaning attachments, small munitions disruption and box rake make it a multi-function tool. Also used for detection is the HD-HSTAMIDS. The HD-HSTAMIDS is a remotely operated vehicle with ground-penetrating radar. The HD-HSTAMIDS sends the deminer a signal when detecting a mine and is designed to reject the false detection of clutter. This handheld mine detector is capable of detecting all metallic and non-metallic anti-tank and anti-personnel mines. With a distinct signal depending on the item located, the deminer is able to increase effectiveness and speed by not stopping for clutter resulting from...
false alarms. Those who had experience with other types of handheld mine detectors were impressed with this time-saving feature. Participants were given a chance to try the detector and also appreciated its light weight of 10 pounds. The HSTAMIDS is currently used by the U.S. Army in Afghanistan and Iraq.

Following a morning of field demonstrations, the group moved to a sheltered area for a neutralization and detonation presentation. John Fasulo and Dwylakene L. Paul, members of the U.S. Army Communications-Electronics Command’s Night Vision and Electronic Sensors Directorate at Fort Belvoir, Va., introduced several neutralization items. NMX foam, or nitromethane explosive foam, neutralizes landmines close or equal to their maximum detonation rate on the ground, above the ground (such as mines attached to trees) and in hard-to-reach areas. The process of mixing nitromethane and hydrocarbons (propane and isobutene) results in a chemical compound capable of producing an explosive. Contained in two aerosol cans, both components are highly flammable liquids but do not become explosive until combined and sprayed on the main charge of the mine. Because each kit of NMX foam costs less than $20, this neutralizer is cost-effective for most mine programs.

These demonstrations gave mine action workers from around the world an opportunity to see the latest developments. Many hoped to be able to influence their own demining organizations to bring this technology home.