

THE NDPC NEWS

The Newsletter of the National Domestic Preparedness Consortium



MESSAGE FROM THE CHAIRMAN



New Technologies to Increase Effectiveness

In this issue, you'll learn about how the National Domestic Preparedness Consortium members use new technologies to increase our nation's preparedness for threats and hazards. New technologies can not only reduce costs but can also help to save lives and improve disaster response and recovery.

Also in this issue, you'll learn how New Mexico Tech's Energetic Materials Research Testing Center (EMRTC) and the University of Hawaii's National Disaster Preparedness Training Center (NDPTC) have incorporated small unmanned aerial systems into their training courses. New Mexico Tech is focused on explosive threats from terrorists, and Hawaii's NDPTC focuses on natural hazards.

The Center for Domestic Preparedness has incorporated the latest Ion Mobility Spectrometry (IMS) Raman and Fourier Transform Infrared (FTIR) spectrometry into their training courses for emergency response, hazard assessment and courses that deal with contamination by chemical substances. The Center for Radiological Nuclear Training (CTOS) also has developed advanced training using a radiological dispersal device where participants learn how to measure radiation levels, operate contamination control lines, conduct lifesaving rescue operations, and manage events involving radiologically-contaminated environments.

You'll also learn about training at the Security and Emergency Response Training Center (SERTC) for dangerous railroad and hazardous material scenarios. The emphasis for all members of the consortium is on bringing the most needed training to our nation's first responders.

The National Center for Biomedical Research and Training (NCBRT) offers a suite of Computer-Aided Management of Emergency Operations (CAMEO) courses to first responders and emergency managers to prepare jurisdictions to respond to hazmat incidents. The mobile delivery course includes all of the critical elements in CAMEO, CAMEO Chemicals, CAMEOfm, ALOHA and MARPLOT.

*The Texas A&M Engineering Extension Service (TEEX) and the Center for Domestic Preparedness (CDP) have conducted joint training using a web-based tool called WEB EM*ED (Emergency Management*Exercise Systems) to bring together hundreds of first responders, emergency managers, and healthcare personnel to coordinate and collaborate on training exercises. This technology not only leads to high quality training and interactions across vast distances; it also saves resources and reduces travel costs. These are the types of innovations that ensure continuous improvement in the development and delivery of our training.*

The consortium is here to serve. As a national resource and trust training partner of the Department of Homeland Security and the Federal Emergency Management Agency it is critical that we work closely with states, territories, and tribal agencies. In this issue, you'll also learn about the NDPC's tribal nation's advisor Rosalita Whitehair and her journey from responder to emergency manager. We need to work together to understand not just the threats and hazards, but also the needs, assets and capabilities within the diverse communities we serve. While new technologies play an important role, we must also strive to understand the cultures, strengths, and challenges we face together.

Karl Kim, Ph.D.

Chair, NDPC • Executive Director, NDPTC

EXPONENTIAL GROWTH IN DRONE TECHNOLOGY LEADS TO WEAPONIZATION OF SMALL UNMANNED AERIAL SYSTEMS



Onboard aerial photo by sUAS delivering simulated explosive payload at New Mexico Tech/EMRTC

Technology and information advancements have facilitated the profusion of useful and peaceful applications for Small Unmanned Aerial Systems (sUAS); however, this creates a greater opportunity for those who wish to harm and create chaos.

At an August 2010 technology conference, David Kirkpatrick theorized that, "Every two days we create as much information as we did from the dawn of civilization up until 2003." Google CEO Eric Schmidt further posits that, "The speed of change is exponential. The amount of technological advancement that occurred in the year 2000 occurs every 1 hour and 6 minutes in 2013, and will occur every 30 seconds in 2020." Although debate exists about the accuracy of those estimates, it's clear that technology is expanding at a staggeringly rapid rate. Its effect is very clearly demonstrated in the recent evolution of sUAS. Information on drone technology advancements is freely shared and widely available online, for both productive and nefarious purposes.

As an example, the Oxford Research Group's Remote Control project has posted a paper (Hostile Drones, http://remotecomproject.org/wp-content/uploads/2016/01/Hostile-use-of-drones-report_open-briefing.pdf), which analyzed capabilities of 200 commercially available drones and found that many of them can easily be converted to carry and drop payloads such as explosives. Further, they report that terror groups such as ISIS have been known to be experimenting with drones since at least 2014 and they are undoubtedly working to exploit new capabilities as they come online. At this writing, one can easily find videos of consumer and prosumer class drones on YouTube that have been fitted with automatic firearms, flamethrowers, and payload delivery mechanisms.

Research and testing on hostile drone use is underway at New Mexico Tech's Energetic Materials Research and Testing Center (EMRTC). In a recent test, an inexpensive and readily available hobbyist quadcopter carrying a one pound payload of a simulated high explosive material was launched and its

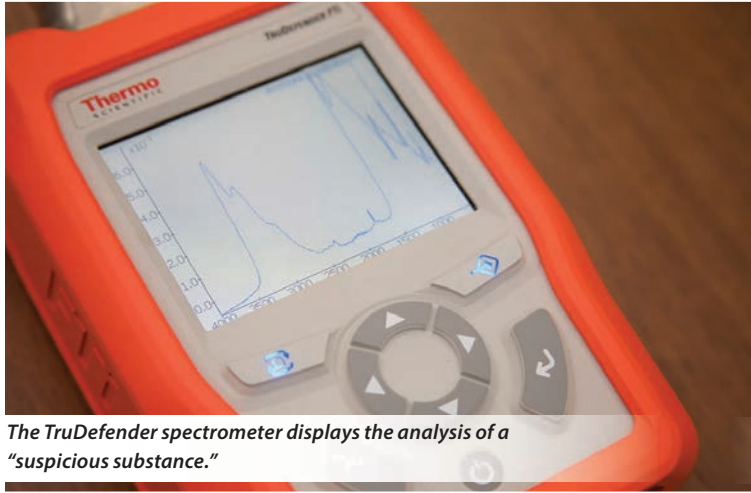


Drone releases 1 lb. payload onto target

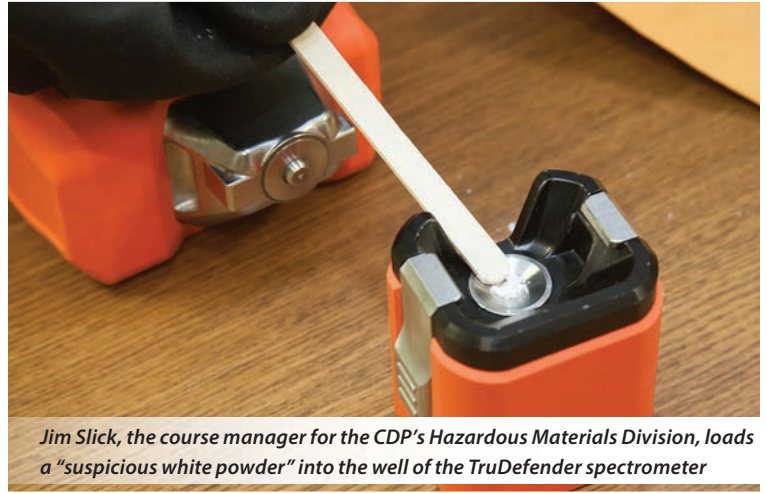
Continued on page 2

CDP EMPLOYS EMERGING TECHNOLOGIES TO TRAIN RESPONDERS

Several courses offered by the Center for Domestic Preparedness include training on tools and technologies that will improve readiness and response capabilities.



The TruDefender spectrometer displays the analysis of a "suspicious substance."



Jim Slick, the course manager for the CDP's Hazardous Materials Division, loads a "suspicious white powder" into the well of the TruDefender spectrometer

One such technology is the latest evolution of Ion Mobility Spectrometry (IMS), a complex technology that CDP plans to implement into technician-level (i.e., HAZMAT) training in late summer or early fall of 2016. Configured within a hand-held spectrometer that resembles a lantern-style flashlight, IMS allows for the detection of trace amounts of explosives precursors that may be used for the illicit manufacture of explosives. "The CDP teaches responders to use IMS spectrometry to detect chemicals that can be used for nefarious purposes," said Mick Castillo, the CDP's Technology Integration Coordinator.

Explosive precursors are potential threats, such as common, commercially-available peroxide-based, volatile and unstable chemicals used to construct the Improvised Explosive Devices (IED) detonated in the recent Paris and Brussels terrorist attacks. Another commercially-available precursor is ammonium nitrate, the chemical used in the IEDs that devastated the Alfred P. Murrah Federal Building in 1995, and killed 168 people.

CDP has already implemented Raman and Fourier Transform Infrared (FTIR) spectroscopy into courses that teach technician- and operations-level responders to conduct field-based, presumptive analyses of suspect chemicals. Although shaped and configured differently than the IMS spectrometer, CDP's Raman and FTIR spectrometers are also lightweight, handheld, user-friendly instruments that now allow for pronounced accuracy in field analyses. Castillo enthusiastically stated that approximately 15 years ago, this level of accuracy in field-based chemical detection through use of small, lightweight spectrometers was not at all common.

"We have several courses in which responders train with IMS, Raman and FTIR spectrometers in the detection and analyses of a broad spectrum of chemical threats, not strictly those classified as explosives precursors," Castillo said. "The responders learn to use varying survey and monitoring technologies developed for response operations in environments potentially contaminated by chemical substances."

"In several CDP courses, responders conduct hands-on training with spectrometers to detect varying nontoxic chemical compounds in small group training lanes. They then use the same spectrometers to detect GB and VX nerve agents in the nation's only toxic chemical-agent training facility dedicated solely to training emergency responders, the Chemical, Ordnance, Biological and Radiological (COBRA) Training Facility," Castillo said. The CDP has trained nearly 10,000 responders to use IMS-, Raman- and FTIR-driven spectrometers in the following CDP-developed, technician- and operations-level courses:

- Emergency Responder Hazardous Materials Technician for CBRNE Incidents (ERHM)
- Hazardous Materials Technician for CBRNE Incidents (HT)
- Hazard Assessment and Response Management for CBRNE Incidents (HARM)

"The CDP's mission is to train responders to ultimately save lives," Castillo said. "With an understanding of the capabilities and limitations of the technologies we've discussed today, responders will leave our campus with the capability to do just that." ■

Continued from page 1

EXPONENTIAL GROWTH IN DRONE TECHNOLOGY LEADS TO WEAPONIZATION OF SMALL UNMANNED AERIAL SYSTEMS

payload was successfully delivered to its intended target, an automobile. A live explosive device of identical size, weight, and shape was replaced on the vehicle in the position where the dummy payload was delivered and then detonated to record and collect data regarding the devastating effects. Altogether, such a system can be built for well under \$1,000.00 USD.

The study of these rapidly evolving capabilities and the precision with which explosives and other payloads may be delivered by sUAS is essential in the development of effective doctrine, countermeasures, and tactics to support First Responders. The ease of acquiring these system components, their low cost, and the increasing incidence of terrorist tactics being employed in Western countries demand advances in the toolsets available to counter their effects. As always, the First Responder will be on the front lines in the drone war. ■



One pound high explosive device detonated after drone delivery

NDPTC'S UNMANNED AIRCRAFT SYSTEMS COURSE LAUNCHES

Beyond the training mission, NDPTC engages in scientific research



Instructor prepares UAS for launch

Unmanned Aircraft Systems (UAS) have been used in almost every recent disaster since 2011. The ability to collect real-time information and the relatively low cost of operations has made UAS a powerful tool for disaster management. As this emerging technology continues to develop, innovations in miniaturization of advanced sensors are opening new applications for the natural hazards field.

The National Disaster Preparedness Training Center (NDPTC) has begun delivering its new UAS in Disaster Management course that was recently certified by FEMA. The course guides government agencies, first responders, and others in emergency management through the steps needed to build a successful UAS program. Information discussed in the UAS course will help participants improve situational awareness, operational coordination, and response time.



This course aims to explain all the uses of UAS in disaster work, from mitigation and preparedness to response and recovery, while detailing the different types of UAS and how each are appropriate for different uses. Through this course, participants will be able to determine how UAS may help them better accomplish their mission objectives.

During disaster management, UAS are able to provide:

- Post-disaster damage assessment imagery
- Critical items deliveries, such as medicine to stranded people
- Temporary communications networks
- Infrared sensors for search and rescue operations
- Infrastructure analysis for disaster mitigation
- Early storm warning public audio announcements via an onboard speaker system

"A very important role of disaster management practitioners is to interact with this emerging UAS capability, bringing real operational needs forward to inform the design community," said NDPTC course instructor Ted Ralston. The course will cover topics related to vehicle and sensor selection, current Federal Aviation Administration regulations, the importance of engaging the local community, privacy issues and civil rights, and applying for FAA authorization.

Upcoming UAS classes will be located in New Mexico, Ohio, and Rhode Island. ■

MULTIPLE LAVA FLOWS MONITORED BY UAV TECHNOLOGY

Funding provided by the National Science Foundation



Aerial imagery from UAV during an eruption at Stromboli volcano

In May of 2016, NDPTC scientists travelled to Stromboli, one of the most active explosive volcanoes in the world and collected aerial data with an unmanned aerial vehicle (UAV) in conjunction with high-speed cameras on the ground. A detailed map of the summit of the volcano was constructed to help measure the changing physical shape and depth of individual vents. This type of information can be useful to scientists when they create different types of hazard models to be shared with emergency officials during a crisis.

In Hawaii, NDPTC is hoping to extend this form of research to cover the 2016 lava flows currently entering the ocean at Kamokuna, with a research permit pending with Hawai'i Volcanoes National Park. In the interim, NDPTC, University of Hawai'i Hilo and UH Manoa are applying UAV technology to the lava flow hazards in Puna in 2014-2015, using funding from the National Science Foundation. Communities on the Big Island came under threat from these lava flows which could have cut-off transportation access to over 10,000 people. The courses enhanced by lava flow research are AWR-233 Volcanic Crises Awareness and AWR-345 Unmanned Aircraft Systems in Disaster Management. ■



Multi-rotor UAV used to monitor eruption at Stromboli volcano. Stromboli is one of the Aeolian Islands off the coast of Sicily



DO YOU KNOW WHAT CAMEO CAN DO FOR YOU?

CAMEO software suite is the most underutilized tool in emergency operations planning and response



Participants learn the advantages of using CAMEO during hands-on practice

The National Center for Biomedical Research and Training (NCBRT) offers the Introduction to Computer-Aided Management of Emergency Operations (CAMEO) software suite course to first responders and emergency planners primarily to help prepare their jurisdiction to respond to potential hazardous materials incidents, but CAMEO uses are far reaching.

The CAMEO software suite can be used to access chemical property and response information; model potential chemical releases; display key locations and release predictions on a map; and manage planning data, especially data required by EPCRA. In addition to preparing for a hazardous materials incident, CAMEO can also be used as a support tool for responses to hurricanes, wildfires, floods, tornadoes, and search and rescue.

CAMEO can be used for non-traditional purposes too. NCBRT instructor and retired fire chief Earl Gorrondona used CAMEO while serving as a contract part-time fire chief for the Abita Springs Fire Department in Louisiana. "CAMEO is a great way to organize data. I used the software to build a database for the rating bureau, and that data was placed in laptops onboard all department fire trucks," said Gorrondona.

"We mapped hydrant locations in MARPLOT; created preplans in CAMEOfm which included aerial photos, building site maps, and diagrams to the closest water sources. Resource records were also created in CAMEOfm for fire vehicles, which included equipment inventories, required pump and hose tests and equipment checklists. Resource records were created for each firefighter that stored individual firefighter training and certification records, in addition to their personnel information. As a result, we improved our rating by eight points."

"We also tracked individual incidents in MARPLOT. This allowed us to determine staffing needs at individual stations," Gorrondona added.

Considering the value of CAMEO as a tool for emergency planners and responders, it is often overlooked. "The big problem is CAMEO is underused," says NCBRT Instructor Tab Troxler. "I asked HAZMAT teams what they are looking for in an event and they have no idea. We need more usage of the program."

NCBRT offers one of the few comprehensive introduction CAMEO training opportunities. The 24-hour mobile delivery course includes detailed technical information and hands-on practice of critical elements in the CAMEO system and its associated programs (CAMEO Chemicals, CAMEOfm, ALOHA and MARPLOT).

To better understand how the programs interface, participants are provided opportunities to practice key procedures that allow users to enhance planning and response activities associated with community risks. These exercises clarify the connections between the programs and how they can enhance emergency planning and response activities.

A 32-hour mobile train-the-trainer version of this course is also offered for established trainers or instructors in academies, agencies or departments who are seeking to train participants by teaching the indirect version of this course using course materials provided by NCBRT.

NCBRT courses are certified by the Department of Homeland Security and covered under DHS's Homeland Security National Training Program. As a DHS primary training provider, NCBRT can offer this vital training at no direct cost to your agency. Visit www.ncbtr.lsu.edu to learn more or to schedule this course. ■

EVENTS AND ANNOUNCEMENTS

EMS World Expo, New Orleans, LA	10/05-07/2016
National Congress of American Indians - 73rd Annual Convention and Market Place, Phoenix, AZ	10/10-13/2016
International Association of Chiefs of Police Conference (IACP), San Diego, CA	10/16-18/2016
Vermont Preparedness Conference, Fairlee, VT	11/04-05/2016

TRAINING FIRST RESPONDERS IN REAL-LIFE RADIOLOGICAL CONTAMINATION SCENARIOS

CTOS integrates contamination simulants into RDD course



Training exercise using STS and a modified Ludlum
Photo Credit: Radiation Safety & Control Services Inc.

Seeing is believing, and hands-on training in realistic environments imprints on the student. Realistic field experiences are a challenge for hazardous material response training. CTOS is developing a Radiological Dispersal Device (RDD) first-responder course focusing on contamination control using an alpha radiation surrogate for initial training, followed with a live radioactive contamination exercise. Real-world incidents, such as the Polonium-210 poisoning of Alexander Litvinenko in London 2006, demonstrated the lack of experience addressing alpha contamination incidents. Response agencies and training are geared toward incidents involving gamma radiation but greater emphases must be placed on scenarios with the dispersion of radioactive material that emit alpha-radiation. This course explores methods of contamination control in a response setting by performing lifesaving tasks in an actual radiologically-contaminated environment. The exercises in this course will show participants how easy radiological contamination can be spread unknowingly while reinforcing control techniques. The initial training uses Safe Training Systems Ltd (STS) LS1 Simulated Source which contains fluorine that slowly evaporates and emulates alpha-emitting surface contamination. It also replicates the cross contamination characteristics of radioactive material without the inherent risk of real radioactive source material. A modified

Ludlum Model 3 STS 808 instrument responds to the fluorine similarly to real alpha-emitting surface contamination. Students gain realistic experience on control and survey techniques. Helping set the stage is a simple exercise where items in the classroom break area are sprayed with LS1 Simulated Source. They are touched by students who spread "contamination" to each other and around the room. A follow-on survey demonstrates the ease and extent of contamination spread to others. This simulant is also used during the drills for "donning" and "doffing" personal protective equipment (PPE) and contaminated "Hotline" operations. By spraying the Tyvek suits prior to doffing, students can see how contamination spreads by improper handling of PPE during the removal process and they learn correct personal survey techniques and contamination control line processes.

Students also participate in an RDD exercise where they establish and operate a contamination control line. They conduct lifesaving rescue operations, measure radiation levels, and manage the scene. The live training will be conducted at the CTOS T-1 training center located on a former site where four nuclear detonations occurred between 1952 and 1957. A small amount of nuclear fallout remaining from these detonations is now below the surface of the soil, providing a realistic and safe training area. A short-lived Technetium-99m is added to the residual area radioactive background to provide removable contamination, simulating an RDD incident in a downtown center. Students conduct first-responder lifesaving tasks in the contaminated environment and then process through contamination control "hot lines." Students will gain the confidence needed to respect and not fear the resulting contamination from a RDD incident. ■



STS LS1 spray liquid or granular simulant

WEB EM*ES SOFTWARE ALLOWS JOINT TRAINING BETWEEN MEMBERS

TEEX and CDP conduct joint training hundreds of miles apart

Emergency personnel were responding to a disastrous train derailment with an oil spill and a chemical plant explosion – 740 miles apart. But there was something that linked these two events.

The healthcare personnel and emergency managers from the National Capital Region – who were in Anniston, AL, and College Station, TX – were linked through the Texas A&M Engineering Extension Service's (TEEX) unique web-based simulation training tool, called the Emergency Management*Exercise System (EM*ES).

The mock incidents were part of the Integrated Capstone Event exercise for several classes at the FEMA Center for Domestic Preparedness (CDP) in Anniston and the TEEX class in Enhanced All-Hazards Incident Management / Unified Command in College Station.

More than 100 healthcare personnel from the National Capital Region and surrounding states participated in the exercise at the CDP, and nearly 50 emergency managers and responders participated at the TEEX Emergency Operations Training Center in College Station.

Both the CDP and TEEX venues coordinated and collaborated prior to, during, and after the exercise. Incident injects in the exercise were developed and executed by both CDP and TEEX controllers to ensure that planning, staging, resource allocation, communication, and coordination occurred between the two venues. Areas of collaboration included: hospital bed space, water contamination, HazMat resources, public health, field command operations and public information. Following the exercise, two representatives from the National Capital Region (one at CDP and one at TEEX) presented a combined hotwash to share lessons learned with all participants through a live video teleconference.

This coordinated multi-site exercise was made possible thanks to the new web-based version of the EM*ES software, which was designed to support realistic, scenario-based training of multiple disciplines and positions in an incident command post setting. The web version allows multiple, simultaneous exercises to be performed across several locations anywhere in the world, providing greater flexibility for course delivery and reducing costs.

The Web EM*ES software was developed in conjunction with the Texas A&M Engineering Experiment Station (TEES) and the Texas Center for Applied Technology (TCAT), under the project leadership of TCAT Executive Director Dr. Jim Wall.

CDP and TEEX's National Emergency Response and Rescue Training Center, both members of the National Domestic Preparedness Consortium, previously conducted a joint exercise using the EM*ES in 2014, demonstrating that disasters may be managed from a distance as long as there are effective communication systems in place. The collaborative training by TEEX and the CDP was offered as part of the DHS/FEMA Homeland Security National Training Program Cooperative Agreement.

Courses currently available for mobile delivery using the Web EM*ES software include:

- MGT-440: Enhanced Sports and Special Events Incident Management
- MGT-346: EOC Operations and Planning for All-Hazards Events

The TEEX course, MGT-314: Enhanced All-Hazards Incident Management / Unified Command, is delivered on site at the TEEX Emergency Operations Training Center in College Station. Now, with the use of the Web EM*ES software, TEEX is partnering with Los Angeles County to set up a Los Angeles training facility that will allow for delivery of the previously residential-only course on site in Los Angeles. ■



SURFACE TRANSPORTATION TRAINING... AND SO MUCH MORE

SERTC is home to the most in-depth, first responder training program in the country for railroad hazardous material scenarios



Tactical Hazardous Materials Operations for Surface Transportation Course (THMOST) Pilot course

Training provided at the Security and Emergency Response Training Center located in Pueblo, Colorado (SERTC) is primarily focused on surface transportation which includes; freight and passenger rail, highway, and intermodal transportation emergency response and preparedness.

SERTC is home to the most in-depth, first responder training program in the country for railroad hazardous material scenarios. Founded in 1985, SERTC has trained more than 63,000 responders in hazardous material emergency response procedures.

The current course catalog of DHS-FEMA funded courses comprises of five residential and three remote delivery programs aimed at surface transportation responders.

One of the newest residential courses is Crude by Rail Emergency Response. The Crude by Rail Course was initiated by The Association of American Railroads and TTCI/SERTC was tasked in March of 2014 to design, develop and deliver the training to the first responders. In May of 2015, FEMA certified the course and it became available for federal funding. To date, SERTC has trained approximately 4125 students during the three day class. This is one example of how the transportation industry lead the way, SERTC was able to take one of its non-funded courses and convert to one available under DHS-FEMA funding.

SERTC has also begun offering all DHS-FEMA funded courses in Spanish. A growing number of emergency responders in states along the U.S. southern border speak Spanish as either their primary or secondary language. According the Texas Center for Policy Studies, since the passing of the North American Free Trade Agreement (NAFTA) in 1993, the amount of hazardous materials and hazardous waste shipments across the Mexican border has increased. In 2015, U.S. trade with Canada and Mexico quadrupled to 1.14 trillion. According to a U.S. Customs Service study concluded in 2000, truck traffic at the U.S. Mexican border (to include Texas, New Mexico, Arizona and California) increased by more than 1.6 million during the years of 1993 to 1999. "Your institute has been a pioneer providing training in Spanish language course, in the area of emergency management. For that we are extremely grateful", said Angel A. Crespo-Ortiz, Director of Puerto Rico Emergency Management.

Continued upgrades and improvements to existing programs at SERTC include changes to the Intermodal Specialist Class, Tank Car Specialist, and Highway Emergency Response

Specialist program. The 3 day Intermodal Specialist Class will soon include a significant addition to one of its scenario based exercises. SERTC will use a MI JACK® Travel Lift Crain as a training prop to simulate a hazardous materials release in one of a number of intermodal containers currently in use. In the 5 day Tank Car Specialist program, SERTC continuously upgrades the participant experience with the assistance of our industry partnerships.

In the near future SERTC anticipates its' Tactical Hazardous Materials Operations for Surface Transportation Course (THMOST) will receive DHS FEMA certification. This program trains Law Enforcement Officers to work within chemical protective clothing while responding to incidents involving passenger rail car and mass transit vehicle emergencies. The participants utilize Simunitions™ to manage live terroristic threats during the tactical phase of the course. This program will not teach tactics, but how to safely and effectively operate in a hazardous materials environment during situations that involve "Active Shooter" or WMD device.

On the forefront SERTC has two new courses under consideration for in-house development. One is a program called Tank Car Loading and Unloading Emergency Response (TCLUER). This program will address planning, tactical concerns and operational considerations in responding to either a loading rack or trans loading incident involving rail or highway cargo vessels. The course will have the ability to transition from a release of environmental concern to an active fire. This will require proper suppression techniques. The other program under consideration is called Hazardous Materials Response Specialties (HMRS). This course will focus on advanced techniques, tactics and procedures necessary for the hazardous materials technician to be able to perform skills in accordance with recommended knowledge, skills and abilities. It will include modules on PPE Selection, hazardous materials identification through the use of wet chemistry, homemade explosive management, Tech Spec HM Info work using mobile based applications and hazardous materials safety officer training. All of the modules will be focused on responses during a surface transportation emergency. This program will be designed to be residential as well as remote delivery based. SERTC prides itself in identifying emerging hazards within the surface transportation arena, creating a course, running pilot deliveries, and seeking the funding to deliver courses at no charge to emergency responders. ■

AN INTERVIEW WITH ROSE WHITEHAIR

NDPC's Tribal Nations Advisor

Rose Whitehair served on the NDPC Advisory Council since August 2015. Her role was to assist in the efficient and effective management of resources and programs for the Tribal Nations. She was previously the Director of the Navajo Nation Department of Emergency Management. Ms Whitehair recently took a position with High Water Mark, LLC and unfortunately had to resign from the Advisory Council. We thank her for her service to NDPC to better identify and prioritize its training development for the tribal community. She will be missed.

Please tell us a little about your background as an Emergency Manager and Emergency Responder.

I started out volunteering with the Red Cross, and then with the Navajo Nation Fire and Rescue out of Station 10 in Window Rock, Arizona. I became a licensed EMT and instructor, and graduated from the University of New Mexico with a focus in Emergency Medical Services (EMS), where I helped them build their Bachelor's in EMS Studies. I then went to medical school because at that time, there were no graduate programs in Emergency Management (EM) or Homeland Security. After three years, I wasn't feeling the calling. I longed again for Incident Command and large-scale operations and planning.

The EM field is a different calling. It takes a certain type of skills. You need the ability to be in the line of fire, to give bad news, and to make huge decisions that will impact multiple lives and property; all while calmly analyzing the current circumstances, actions taken, and needs of the community. First responders are trained to always be prepared for the worst. In that way, you aren't surprised or overwhelmed when you arrive on scene. The same mentality helps you as an emergency manager. You're always inquiring, always assessing a situation. It helps with calming the chaos.

Can you describe for us some of your experiences working with tribal communities?

A large number of tribal communities still have their unique culture, heritage, and language. Although there are a number of commonalities between us, we are 567 separate and distinct tribal nations, each with our own structure of government. The most eloquent description I have heard is, "If you've worked with one tribe, you've worked with one tribe." It's like working with foreign nations. Our tribal 'leaders' aren't just leaders; they are tribal dignitaries and should be treated as such. Our tribal 'members' are not just members; they are dual citizens of both the U.S. and their tribal government. There are distinct social practices, common laws, and unwritten laws that outsiders are not aware of, and we must be respectful of that.

From your perspective, what are some of the unique needs and assets in tribal communities?

Unique needs: Tribal consultation requires one-on-one, face-to-face meetings. You must build that trust with the tribe. Don't expect surveys to be filled out or emails to be returned if you ask a question, because the tribe may not have an emergency manager. Some emergency managers play multiple roles, like the Fire Chief, Public Safety Director, and the OSHA Inspector. Sometimes we wear many hats and don't have enough staff.

Executive Order 13175 urges that federal agencies must coordinate and consult with the tribes. This is extremely helpful because tribes don't have access to funds like the states and

counties do. What can take a county 7 steps to complete an application, a Tribe must take 70 steps to complete the exact same application, for the same fund or project.

It would be great if there were assistance to help the tribes build their EM programs by helping them with Emergency Management Performance Grant Program applications, or conducting training at the local level to build up Tribal Community Emergency Response Teams. Providing training at the regional level would also allow tribes to invite others to their trainings.

Unique Assets: There are some unique programs available through the tribes. Some have Indian Health Service commissioned corps, while others may have licensed Community Health Representatives who can interpret tribal languages, identify locations of high-risk individuals, or take GPS coordinates. Again, you won't know unless you work closely with the tribe.



How important is training and education?

Training and education is extremely important. It empowers the community. Those who are trained are able to build a better career, sometimes in impoverished societies, which helps with the economic development of our communities. If we can train one person to be prepared, that is one less person devastated by a disaster. They do not become another statistic; they become an asset. And out of the goodness of our hearts, the majority of us, truly just want to help.

What can the NDPC do to improve service and build capacity to prepare for, respond to, and recover from disasters in tribal communities?

I suggest working regionally with the tribes. Most tribes are involved with their regional organizations. You can bring training to their conferences or workshops and spend time with them. Allow time to get to know the community and their people. There are plenty of tribal organizations to work with like the National Tribal Emergency Management Council (<http://ntemc.org/>), and the Inter-Tribal Emergency Management Association (<http://itema.org/>), who can assist NDPC with reaching out to the regions. It is also important to work with the FEMA Tribal Liaisons. They can help with bridging training needs to the tribal communities.

In closing, it's been a good year. Taking some time out of full-time work and making health and family my priority has been the best decision I have made. The year I spent with NDPC assisting with the tribal roll-out was refreshing and re-ignited my interest in training. Again, thank you for allowing me this year to do what I could to help. ■

ABOUT THE NDPC

The National Domestic Preparedness Consortium (NDPC) is a partnership of public and private organizations committed to serving emergency responders by providing quality, cost-effective counterterrorism training. The NDPC is sponsored through the Department of Homeland Security (DHS), Federal Emergency Management Agency's National Preparedness Directorate. It is the principal vehicle through which DHS develops and delivers training to state and local emergency responders.

The consortium is comprised of several preparedness training centers: the Energetic Materials Research and Testing Center at New Mexico Institute of Mining and Technology, the National Center for Biomedical Research and Training at Louisiana State University, the National Emergency Response and Rescue Training Center of Texas A&M University System's Texas Engineering Extension Service, the National Exercise, Test, and Training Center at the Nevada Test Site, the Center for Domestic Preparedness, the Transportation Technology Center, Inc. in Colorado and the National Disaster Preparedness Training

Center at the University of Hawai'i. Each of these organizations has distinguished themselves nationally as experts across the gamut of chemical, biological, radiological and nuclear explosive agents, as well as in all four homeland security mission areas of prevention, protection, response and recovery. The NDPC provides advanced-level training to those involved in WMD and all-hazards catastrophic events.

Since its establishment in 1998, the NDPC's impact on national preparedness has been substantial. The NDPC has conducted training in all 50 states and each U.S. territory. This training has benefited more than a million people since 1998. Today, the consortium's various programs meet the training and education needs of more than 60,000 emergency responders each year. The consortium combines the missions of all its members with a commitment to provide a focused, threat-responsive, long-term national capability and capacity to execute and sustain comprehensive education, training, testing and exercise programs. ■



The NDPC is comprised of seven members possessing core competencies that span the entire homeland security enterprise domain

• CDP • CENTER FOR DOMESTIC PREPAREDNESS

Expertise: Prevention, deterrence and response to CBRNE hazards and healthcare/public health mass casualty

• LSU-NCBRT • NATIONAL CENTER FOR BIOMEDICAL RESEARCH AND TRAINING AT LOUISIANA STATE UNIVERSITY

Expertise: Biological, law enforcement, and agroterrorism response

• NNSA-CTOS • NATIONAL NUCLEAR SECURITY ADMINISTRATION/CTOS-CENTER FOR RADIOLOGICAL/NUCLEAR TRAINING AT THE NEVADA NATIONAL SECURITY SITE

Expertise: Prevention and response to radiological/nuclear attacks

• TTCI • TRANSPORTATION TECHNOLOGY CENTER INCORPORATED / SECURITY AND EMERGENCY RESPONSE TRAINING CENTER (SERTC)

Expertise: Rail and surface transportation safety, security and emergency response in surface transportation

• NMT-EMRTC • THE ENERGETIC MATERIALS RESEARCH AND TESTING CENTER AT NEW MEXICO TECH

Expertise: Prevention, deterrence, response and recover to explosive related events

• TEEEX-NERRTC • TEXAS A&M ENGINEERING EXTENSION SERVICE, NATIONAL EMERGENCY RESPONSE AND RESCUE TRAINING CENTER

Expertise: Cybersecurity, crisis communications, executive and elected officials education, hazardous materials awareness and operations, health and medical services, incident management, infrastructure protection, search and rescue, threat and risk assessment, and training gap analyses

• UH-NDPTC • NATIONAL DISASTER PREPAREDNESS TRAINING CENTER AT UNIVERSITY OF HAWAI'I

Expertise: Natural disasters, coastal communities, islands and territories, underserved at-risk populations

Center for
Domestic
Preparedness



FEMA



NDPTC



New Mexico Tech
Energetic Materials Research and Testing Center

Counter-Terrorism Operations Support
CTOS
Center for Radiological/Nuclear Training

