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a. Federal Agency Innovations

The afternoon session began with a national perspective on homeland security, featuring speakers from agencies with national responsibility. The Department of Defense's homeland security group is called Northern Command, with headquarters in Colorado Springs, Colorado. Colonel (Dr.) Anthony Rizzo from the medical office spoke to the conference about the National Biosurveillance Integration System (NBIS), a Department of Homeland Security-sponsored surveillance tool for early detection to warn of a natural or man-made biological event. The NBIS utilizes 'data mining' from the active feed of multiple sources, computer and human analysis, and pre-established lines of dissemination of the resulting intelligence to warn appropriate authorities, giving them time to act to mitigate the effects of the biological event. This system offers great promise for deterrence and for better security for America.

Northern Command's internet-based program of homeland security education was the topic of Stan Stupinski's presentation. Utilizing the expertise of an energetic consortium of universities from around the nation, the Homeland Security Defense Education Consortium (www.hsdec.org) provides a robust curriculum in an array of important homeland security topics. Northern Command hosts and facilitates course content development. The enthusiastic interest shown by the Consortium's membership of over 30 universities and colleges has been the key to the success of this rapidly-growing program. Modules and materials are available at no cost for in-residence or distance use.

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The Defense Institute of Medical Operations (DIMO) is a joint Air Force-Navy venture, headquartered in San

Antonio (www.brooks.af.mil/web/CIMO/dimo- index.htm). Colonel Kerrie Lindberg, Director of DIMO, told the group about the wide array of courses offered by her organization. The courses were designed to improve interoperability between Department of Defense and allied medical services, and have been taught by portable teaching teams at dozens of countries around the world. Many have applicability to disaster response and homeland security issues. The disaster response courses are 'tiered' for different levels of responders, and usually multi-day events with some hands-on exercise to allow students to demonstrate their knowledge at the end of the course. The content of all of the courses is in the public domain, and several have been taught in the US by military and civilian teams. Colonel (Dr.) Matthew Dolan, also from DIMO, spoke to the group about the potential disaster of natural and man-made outbreaks of several diseases, including influenza. His message added urgency to the need for progress on preparedness for biological events.

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Joseph Cappiello from the Joint Commission for Accreditation of Health Organizations, the national leader in setting standards for hospital care, spoke about his organization's perspective on innovations in disaster health care. None of the 'surge' facilities would be accredited as hospitals under current standards, but that is neither their purpose nor their goal. The public and political expectations for disaster medical response do drive new standards and resource needs, and these are 'unfunded requirements' for hospitals which are already barely solvent. By networking with nearby facilities, private and government organizations, and among conference participants, many of these issues can be solved. Dr. Carlton noted that disasters may force a retreat from the traditional 'standard of care' to 'sufficient care', and that medical personnel should consider this situation thoughtfully before they are suddenly in the midst of the crisis.

Care Capability

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Disaster Life Support (DLS) is an education and training program that applies the longstanding success of the Advanced Trauma Life Support (American College of Surgeons) and the Advanced Cardiac Life Support (American College of Cardiology) programs to disaster medical care. (www.ndls.net) DLS is the result of the partnership of four medical schools: the University of Georgia, Louisiana State University, the University of Texas in Houston, and the University of Texas Southwestern. Courses are designed to prepare students to respond to the wide array of issues that occur with a natural or man-made disaster. The three courses are core, basic, and advanced, designed for students with increasing medical sophistication, and emphasize local preparation and capability for response. Some delay will always characterize the response of nearby regional, state, or national assets, so DLS teaches students to take prompt responsibility for all issues of disaster response when the crisis strikes. Dr. Ray Swienton, Professor of Emergency Medicine at University of Texas Southwestern in Dallas gave a superb overview of the courses and its impact on the Nation.

Another very useful course is Hospital Disaster Life Support (HDLS), created from the "ER One" project of Dr. Mick Pietzack at Washington Hospital Center in the District of Columbia. This two-day course focuses on hospital disaster management response principles for providers of care and administrators. Consistent with other high quality teaching, this course uses both classroom discussions of "all-hazards" principles and hands-on simulation for conventional, chemical, and biological incidents, held in an emergency department setting. Dr. Pietzack's proposal to look to the future with medical facilities in 2001 led to the 'surge hospital' initiative under Dr. Carlton's leadership at Texas A&M.

b. State Agency Innovations

Dr. Harold Timboe (Major General, US Army, retired) led off this section with a thorough description of the Texas Medical Rangers (TMR), a volunteer group of physicians who are available to respond on short notice to disasters in Texas (http://www.txdps.state.tx.us/dem/). A recognized unit of the US Department of Health and Human Services' Medical Reserve Corps program (www.medicalreservecorps.gov), TMR is also a unit of the Texas State Guard. Its membership includes volunteers with verified licensure from all health-related fields, including support skills. As a state guard unit, it is not subject to the authority of the US President, but report to the Texas Governor and his Adjutant General. Its members of nearly 200, divided into eight regional groups, receive civil liability and worker's compensation protection under Texas law when deployed. The unit provides skilled personnel to support the plans of local authorities, who must provide supplies and equipment. General Timboe cited several recent disaster exercises with TMR participation, and TMR support for the 2004 Super Bowl in Houston. He also described other volunteer medical agencies in Texas, notably the 'Protect Texas' program (www.tdh.state.tx.us/cphpr/protect/), the Ready Texas Nurses (www.texasnurses.org) and the National Voluntary Organizations Active in Disaster (www.nvoad.org).

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The Assistant Commissioner for Prevention and Preparedness of the Texas Department of State Health Services (formerly Texas Department of Health), Dr. Alex Hathaway, spoke about the importance of planning carefully for disasters, and of having an effective process for planning (www.tdh.state.tx.us/preparedness/bioterrorism/). She also described her agency's role in statewide catastrophe response preparation.

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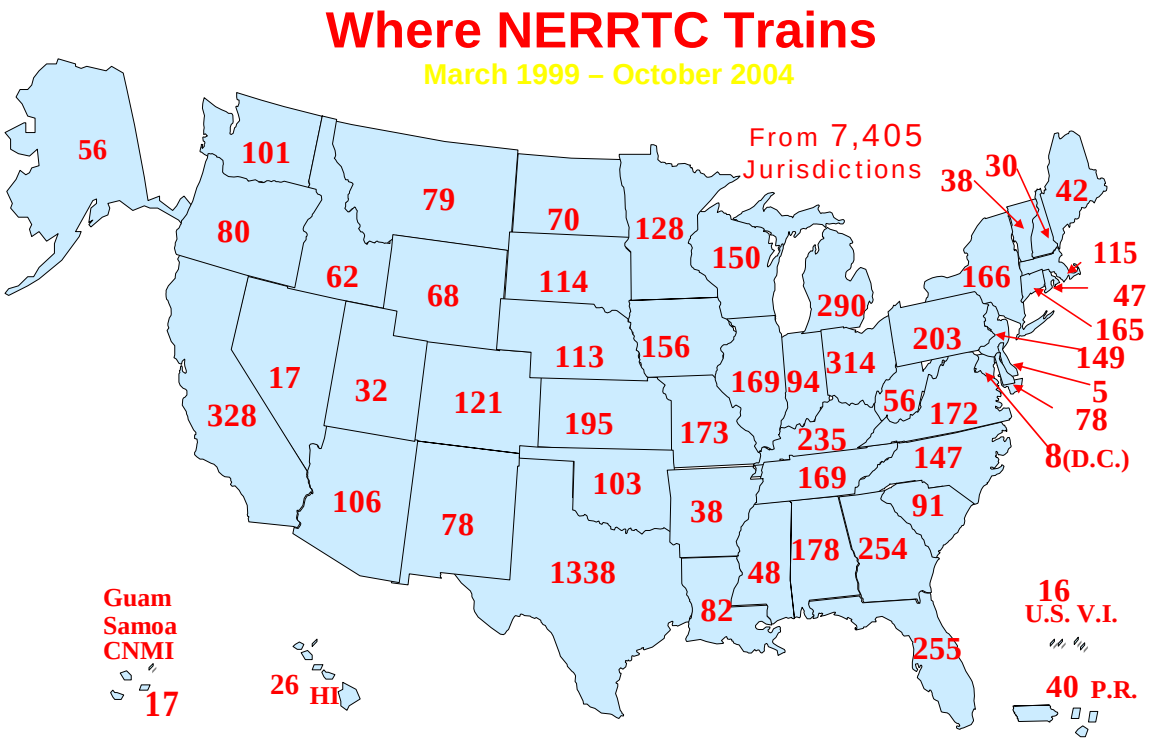
Texas A&M University is home to the National Emergency Response and Rescue Training Center (http://teex.com/nerrtc/), where this conference was held. Doug Rape' told the group about the Center's mission to design, deliver and distribute terrorism and WMD incident training, exercises, and technical assistance for local, state, and federal emergency responders. The Center, at College Station, Texas, is a key part of the 5-site National Domestic Preparedness Consortium, which has trained over 400,000 emergency responders nationwide. Their 16-course WMD curriculum, validated by the Department of Homeland Security's Office of Domestic Preparedness (DHS/ODP) (http://www.ojp.usdoj.gov/odp/welcome.html), can be tailored to fit client needs. Partnerships with CDC, DoD, and Texas Governor's Division of Emergency Management and Department of State Health Services enhance the quality of their courses. Students have come from all fifty states and the occupations of fire, law, emergency medical services, hazmat, public works, public health, health care, and emergency management, in addition to elected public officials. In addition, the Center is the focal point of all WMD exercises in the state of Texas, a very active program in all areas of the state. Finally, the Center has a key regional role in providing a robust Urban Search and Rescue team, and as the regional site for DHS/ODP's Pre-positioned Equipment Program (http://www.ojp.usdoj.gov/odp/equipment_pep.htm).

Brayton Fire Training Field, College Station, TX



They have covered the country and many different areas of the world with their variety of training courses.

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The state of Connecticut has made a significant effort to plan and educate health care providers for disaster and its medical consequences. The System Director of Yale-New Haven Center for Emergency Preparedness and Disaster Response, Chris Cannon, spoke about his agency's role (www.ynhhs.org/emergency). The Center's educational partnerships and programs have reached out to organizations and students around the world, as far away as Turkey, Korea, and New Zealand. The Connecticut Department of Public Health has charged the Center with responsibility for disaster response planning for the southern half of the state. Mr. Cannon pointed out that the key to success with this role is robust partnerships with many organizations and health care facilities, including the faculty of Yale School of Medicine. Using the modular planning approach, the Center has created objectives for a local medical supply stockpile for use in the chaotic early hours before the CDC's Strategic National Stockpile resources

would arrive. They are actively involved in a regional health care provider credentialing program, which could be put into place quickly in time of crisis.

Mr. Cannon's team has state funding for a "Mobile and Surge Hospital" (MaSH), a portable facility ready for response in regional disasters. Mobile Medical International Corporation submitted a proposal to provide the 'surge' capability for 120 additional general and intensive care beds. The system is a combination of ISO containers integrated with soft-sided shelters, including six Universal Support Systems (USS™) and four Lavatory-Shower Units (LSU™). The various units are interconnected by a series of vestibules. Built as a series of six independent 20-bed modules, the system can be custom-built for exactly the right response capability. The entire mobile hospital can be relocated using a truck and tip-up trailer, requiring only one person for loading and off-loading.

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Likewise, the state of North Dakota has made remarkable strides in homeland security education. Dr. Linda Olsen, from the University of North Dakota medical school, described the training program she designed for her state's medical personnel. (www.bordersalertandready.com) Entitled "BORDERS" (Biochemical Organic Radiological Disaster Education Response System), Dr. Olsen's educational program has federal funding and is focused on the threat posed by the adjacent international border. It is governed by a 19-member Advisory Board, made up of experts from the many disaster response communities in North Dakota. The web-based, evidence-based curriculum includes preparedness and prevention, detection and surveillance, WMD diagnosis and response, and communication during catastrophe. Exercises and case studies give hands-on experience to students. By utilizing a standardized curriculum, Dr. Olsen's group is seeking uniformly robust capability throughout the state, not just in urban areas or near the University. Like the Yale team, her team has enhanced partnerships with diverse communities in their region, building better capability for all.

c. Local Agency Innovations

Brazos County, home of Texas A&M University, has a robust planning and exercise program, discussed by Mr. Mike Paulus of the county emergency planning agency. Innovative use of local assets to provide state-of-the-art training to emergency responders is a key aspect of Brazos County's excellent program.