



CBRN IAC

Newsletter



*Chemical, Biological, Radiological & Nuclear Defense
Information Analysis Center*

Volume 12 Number 1
2011



U.S. Coast Guard's Chemical/ Biological (CB) Small Boat and Aircrew Anti-Exposure/Dry Suit

**The USSTRATCOM Center for Combating WMD (SCC-WMD)
Proliferation Security Initiative (PSI) Support Cell**

**Hazardous Materials Course Focus on
WMD Attack and Response**

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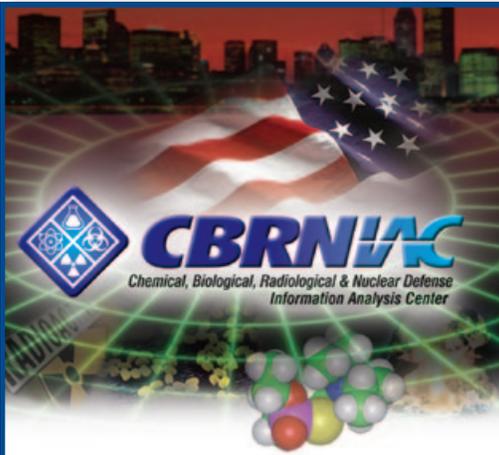
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U.S. Government agencies and private industry under contract to the U.S. Government can contact the CBRNIAC for information products and services. CBRNIAC services also extend to all state and local governments and the first responder community, to include local emergency planners, firefighters, medics and law enforcement personnel.

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On the Cover: USCG member participating in a training exercise for large vessel boarding's while wearing specialized maritime CBR PPE. Photo from the USCG Limited Response Pilot Program. Photographer: LT Damon Sanders, USCG.

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The CBRNIAC welcomes unsolicited articles on topics that fall within its mission scope. All articles submitted for publication consideration must be cleared for public release prior to submission. The CBRNIAC reserves the right to reject or edit submissions. For each issue, articles must be received by the following dates:

- First Quarter (Number 1) – November 15th
- Second Quarter (Number 2) – February 15th
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U.S. Coast Guard's Chemical/Biological (CB) Small Boat and Aircrew Anti-Exposure/Dry Suit

By Mr. Tom Murphy and Mr. Steve Ober, USCG HQ Office of Counterterrorism and Defense Operations

In the years following the attacks of 9/11/01 the U.S. government has taken numerous steps to develop rapid-reaction forces for responding to Weapons of Mass Destruction (WMD) and other terrorist incidents. For its part, in the maritime domain the United States Coast Guard (USCG) identified a need for a limited organic capability to respond to search and rescue and urgent Ports, Waterways, and Coastal Security missions in a contaminated, post-WMD release environment. These forces are required to be organized, trained, equipped, and exercised to operate in contaminated chemical, biological, radiation and nuclear (CBRN) environments and manage consequences of WMD incidents.



USCG boat crew member participating in a port security exercise wearing specialized maritime CBR PPE. Photo from the USCG Limited Response Pilot Program. Photographer: CTR John Taffe, SAIC.

In 2006, the Coast Guard Office of Counterterrorism and Defense Operations initiated a study known as the WMD Pilot Program at three environmentally diverse ports. The program goal was to examine the feasibility of providing limited WMD first responder capabilities to select USCG small boat and helicopter units to conduct *in-extremis* search and rescue and urgent Ports, Waterway, Coastal Security missions. The USCG believed that if personnel could perform those two specified missions while wearing special Personal Protective Equipment, potential applications to other missions could be considered. One of the pilot program outcomes was a demonstrated need to integrate enhanced chemical and biological (CB) protection with the cold-weather anti-exposure suit protection required for normal USCG cold weather operations. The USCG currently uses two dry-suit/anti-exposure suit types, one worn by small boat crews and one worn by aviators and aircrew. For select units the USCG needs a multifunctional suit to provide both anti-exposure protection for day-to-day operations and CB protection against Chemical Warfare Agents and certain Toxic Industrial Compounds. Additionally, this integrated suit needed to stand up to the rigors of day-to-day wear under normal operations. To pursue this initiative the USCG used a previously validated, selectively permeable membrane and incorporated it into the existing anti-exposure/dry suit designs used for non-CB operations (Search and Rescue, Law Enforcement, etc.).

The primary objective was to determine these integrated suits' ability to protect against CB threats. A secondary objective was to determine their service life. To meet the suit objectives, a series of tests included chemical agent resistance swatch testing, system-level Man in Simulant Testing and system-level aerosol penetration testing. For each suit type, testing was conducted on both new suits and suits that had been worn for an extended period by USCG personnel performing their regular

duties. The suit was evaluated against the Target Performance Values for protection against specific Chemical Warfare Agents established under previous Department of Defense testing programs. After over 18 months of evaluations the USCG successfully fielded these specialized suits for use by its Deployable Specialized Forces.



USCG Aircrew member training in aerial marksmanship while dressed in specialized CBR PPE. Photo from the USCG Limited Response Pilot Program. Photographer: AST1 Jason Edmiston, USCG.

The small boat crews wear a dry suit model manufactured by a group of companies that produce survival equipment. The boat crew CB suit is made by a single manufacturer certified to use specific/specialized construction equipment and techniques, and their suit performance was validated by an independent U.S. Government-approved laboratory. The suit is made from a windproof, waterproof, and moisture-vapor breathable laminated fabric. The aviators and air crew suit is made of windproof, waterproof, and moisture vapor breathable, and flame resistant laminated fabric. ♦

For more information contact Mr. Tom Murphy (202-372-2035 / Thomas.W.Murphy@USCG.mil) or Mr. Steve Ober (202-372-2118 / Steve.H.Ober@uscg.mil) in the Coast Guard's Office of Counterterrorism and Defense Operations at Coast Guard Headquarters in Washington DC.

About the Authors:

Mr. Murphy is a civilian employee with the USCG HQ Office Counterterrorism and Defense Operations as the USCG's CBRN Program Manager since 2008.

Mr. Ober is a retired USCG officer who is now a General Dynamics Information Technology (GDIT) consultant supporting the USCG's HQ Office of Counterterrorism and Defense Operations as their CBRN SME for domestic CBRNE response initiatives.

The USSTRATCOM Center for Combating WMD (SCC-WMD) Proliferation Security Initiative (PSI) Support Cell



By Patrick Christian, Chief of the SCC-WMD PSI Support Cell, Defense Threat Reduction Agency

Background

The SCC-WMD PSI Support Cell actively supports Department of Defense (DoD) and U.S. government (USG) participation in PSI exercises and activities across the globe to enhance international interoperability and capabilities in support of Weapons of Mass Destruction (WMD) interdiction in the air, on land and at sea.

The PSI is an international cooperative effort that aims to stop trafficking in WMD, their delivery systems, and related materials. The PSI is an activity, not an organization and participation in the PSI is voluntary. Since its establishment in 2003, 98 countries have committed to support the PSI by endorsing its Statement of Interdiction Principles. With endorsement comes a commitment to take action consistent with established national legal authorities and international laws and regulations that support WMD interdictions. In addition, PSI partner nations also commit to strengthen relevant legal authorities and capabilities. The PSI is not led or “chaired” by a single country, rather, it’s united by a common purpose and designed to support flexible, fast action and coordination among partner nations to counter WMD proliferation.

PSI Statement of Interdiction Principles Summary

PSI Participants are committed to:

1. Undertake effective measures, either alone or in concert with other states, for interdicting the transfer or transport of WMD, their delivery systems, and related materials to and from states and non-state actors of proliferation concern.
2. Adopt streamlined procedures for rapid exchange of relevant information concerning suspected proliferation activity.
3. Review and work to strengthen their relevant national legal authorities where necessary to accomplish these objectives, and work to strengthen when necessary relevant international law and frameworks in appropriate ways to support these commitments.
4. Take specific actions in support of interdiction efforts regarding cargoes of WMD, their delivery systems, or related materials, to the extent their national legal authorities permit and consistent with their obligations under international law and frameworks.

PSI endorsing states routinely get together at what are known as PSI Operational Experts Group (OEG) meetings to consider ways to further enhance WMD interdiction capabilities of all PSI partner nations, and to build global support for the PSI. Participants share ideas, discuss legal authorities and national response processes, conduct industry engagement, share lessons learned, etc. to enhance their respective capabilities to counter the proliferation of WMD.

PSI Objectives:

- Strengthen interdiction policies and legal authorities.
- Build capacities of endorsing states to conduct interdictions.
- Promote the legitimacy of interdiction as an international counterproliferation norm.

U.S. Government Approach

Whole-of-Government Effort. Within the US, effective support for the PSI includes the direct involvement of several Departments and Agencies. The Department of State (DOS) has primary responsibility for U.S. engagements with endorsing states, outreach to non-endorsing states, and other diplomatic activities. These critical functions involve close coordination between DOS and the Department of Defense (DoD) which is the USG’s operational lead for activities in the Operational Experts Group and PSI exercises. The Department of Homeland Security (DHS) (i.e., Customs and Border Protection; Immigration and Customs Enforcement; U.S. Coast Guard), the Federal Bureau of Investigation, as well as the Departments of Energy, Treasury, Commerce and the intelligence community all actively participate and play a vital role in supporting the PSI. Collectively these activities and exercises strengthen U.S. WMD interdiction capabilities, and through international outreach, the capabilities of PSI endorsing nations.

Department of Defense. The DoD routinely supports a wide variety of PSI activities including live exercises, command post exercises, tabletop exercises, seminars, workshops, and other WMD Interdiction training. Since 2007, the SCC-WMD PSI support cell has provided key support to the overall mission. PSI exercises serve to establish interoperability among nations and help develop useful skills and experience relevant to interdiction operations. PSI exercises and activities visibly demonstrate international commitment and capabilities, and serve as a forum to increase global awareness and understanding of the PSI. Since 2003, PSI endorsing nations have conducted over 40 PSI-related exercises and activities worldwide. Although supported by the USG interagency, the vast majority of these have been led by other PSI endorsing nations.

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The PSI Support Cell. The Chairman of the Joint Chiefs of Staff directs USSTRATCOM to designate a PSI Support Cell to meet DoD and USG PSI requirements. The SCC-WMD PSI Support Cell is located in the USSTRATCOM Center for Combating Weapons of Mass Destruction (SCC-WMD) which is co-located with the Defense Threat Reduction Agency (DTRA). The support cell is required to:

- serve as the primary conduit to ensure exercise objectives developed in the OEG process are incorporated into U.S.-hosted PSI exercises;
- support Geographic Combatant Command (GCC) staffs in the development, planning, and execution of US-hosted exercises;
- advocate for and support GCC staffs in developing, planning, and executing PSI exercises;
- support GCC staffs and other U.S. agencies in coordinating participation in foreign-hosted PSI exercises;
- advocate for the inclusion of WMD interdiction elements that support the PSI into existing GCC exercises;
- support Joint Staff/Office of the Secretary of Defense in the planning and execution of international PSI activities involving other U.S. departments and agencies; and
- support U.S. exercise control teams during all PSI exercises.

Additionally, the SCC-WMD PSI Support cell provides subject matter expertise to support PSI international meetings and participates in PSI activities such as the OEG and international outreach.

PSI Exercises. These exercises, which can vary in size (2–30 nations) and complexity, often explore and examine diplomatic and interagency coordination mechanisms in order to exercise national and international laws and customs authorities designed to stop WMD proliferation. They may include tabletop as well as field exercises to examine scenarios, develop potential courses of action and test solutions for ground, maritime, and/or air interdictions. The most visible field exercises include either simulated in-port or at sea interdictions. These activities typically involve multiple PSI partner nations' combined military and civil law enforcement assets that practice communications and tactics related to boarding and searching vessels suspected of transporting WMD-related material and other activities.

The SCC-WMD PSI Support Cell directly supports Combatant Commander's Theater Security Cooperation, partnership capacity and interdiction capabilities building efforts.

The USG's participation in PSI partner nation exercises ranges from simple observation to providing numerous supporting ships, aircraft, and personnel in support of multinational exercise participants and forces. The SCC-WMD's PSI Support Cell routinely provides expert technical exercise development, planning and execution support for DoD Combatant Command staffs and their respective exercise teams. The Geographic Combatant Commands (GCC) host or participate in partner nation PSI exercises within their area of responsibility (AOR), as well as in adjacent AORs. For example, the Cell embeds table top and at-sea counterproliferation interdiction vignettes within USSOUTHCOM's annual Exercise FA PANAMAX and within Exercise PHOENIX EXPRESS in USAFRICOM's AOR. These embedded WMD interdiction events seek to enhance participants' understanding of the PSI and WMD

interdiction processes, as well as serve as an opportunity to engage non-endorsing state representatives to join in supporting the overall goal to counter WMD proliferation worldwide.

In addition to supporting the GCCs, the Cell provides tailored support to several USG-sponsored bilateral and foreign-hosted PSI exercises and activities. Notably in October 2010, the Cell supported the Republic of Korea (ROK) hosted PSI Exercise EASTERN ENDEAVOR by assisting ROK civil and military personnel in scenario development and exercise facilitation.



Republic of Korea Coast Guard boarding "target" vessel during Exercise EASTERN ENDEAVOR 2010.

The SCC-WMD's PSI Support Cell also manages an annual budget to support Combatant Commands costs associated with WMD-interdiction exercises and PSI training activities. These funds are designed to support travel costs for U.S. personnel and costs associated with leasing training venues and for purchasing training aids. For example, the Cell has funded travel for USPACOM and USCENTCOM exercise planners and boarding teams, including U.S. Coast Guard personnel, to exercises such as Singapore's PSI Exercise DEEP SABRE, New Zealand's Exercise MARU, and USCENTCOM's PSI Exercise LEADING EDGE.

Key Points:

- PSI is designed to support flexible, fast action and coordination among PSI partners in response to specific proliferation threats.
- Over 40 exercises incorporating PSI-related activities have been conducted since the Statement of Interdiction Principles were published. While the U.S. has led a number of these exercises, the vast majority are led by other PSI endorsing nations.
- In all nations, effective counterproliferation efforts require a whole-of-government approach.
- Since 2007, the PSI Support Cell has and will continue to support PSI exercises and activities worldwide.

Further information concerning the PSI can be obtained at the DOS website <http://www.state.gov/t/isn/c10390.htm> or by contacting the SCC-WMD Support Cell via email at PSICell@dtra.mil



Contract Awards

Advanced Research and Development of Chemical, Biological, Radiological, and Nuclear Medical Countermeasures

KAKETSUKEN
Kumamoto, Japan
\$33,966,350 December 21, 2010
By Department of Health and Human Services, Washington, DC

AFTAC Nuclear Detonation (NUDET) Detection System (NDS) Analysis System (ANDSAS)

Northrop Grumman Systems Corporation
Chantilly, VA
\$8,904,786 December 20, 2010
By Department of the Air Force, Patrick Air Force Base, FL

Excavating, Dewatering, and Off-Site Transportation of Contaminated Materials from the Vineland Chemical Superfund Site

Sevenson Environmental Services, Inc.
Niagara Falls, NY
\$19,144,833 December 20, 2010
By U.S. Army Corps of Engineers, Philadelphia District, Philadelphia, PA

Advanced Manufacturing Research In Electronics, Biotechnology and Nanotechnology, Technology Innovation Program (TIP)

Manufacturing of Fully Deleted Helper-Virus Independent Adenoviral Vectors

Isogenis, Inc., Aurora, CO

Volume Production of Nanocomposite Alloy Anode Materials for Lithium-Ion Batteries

ActaCell, Inc., Austin, TX

Atmospheric Spray Freeze-Dried Powder Process Advancement and Scale-Up

Engineered BioPharmaceuticals, Inc., Manchester, CT

High-Throughput Manufacturing of Electrospun Core-Sheath Fibers

Arsenal Medical, Inc., Watertown, MA

Process Innovation for High Technology Manufacturing of Flexible Liquid Crystal Displays

Kent Displays, Inc., Kent, OH

Reprogram a Mammalian Cell Line to Optimize Production of Biopharmaceuticals

Precision BioSciences, Inc., Research Triangle Park, NC

Volatile Reporters for Monitoring Biomanufacturing of Therapeutic Proteins

Ginkgo BioWorks, Boston, MA

Low-Cost, Scalable Manufacturing of Surface-Engineered Super-Hard Substrates for Next-Generation Electronic and Photonic Devices

Sinmat Inc., Gainesville, FL

Synthesis of High-Efficiency Organic Photovoltaics for Scalable, Cost-Effective Manufacturing

Polyera Corporation, Skokie, IL

\$22,000,000 December 15, 2010
By U.S. Commerce Department's National Institute of Standards and Technology, Gaithersburg, MD

Supply More Than 550 LCD (Lightweight Chemical Detectors) 3.3s to the German Armed Forces

Smiths Detection
Watford, United Kingdom
December 13, 2010
By German Armed Forces, Germany

Provide Environmental Support; Project Schedule and Cost Controls Support; Action Tracking Support; Quality Assurance Support; Chemical Laboratory And Environmental Monitoring Support; Safety, Security, Training, Risk Management And Surely Support; Computer and IT Support; Systemization And Operations Engineering Support; Maintenance Engineering And Trail Burn Support; Administrative and Records Management Support; Chemical Weapons Treaty Support; Public Outreach Support, and Project Management Consulting Support to the Chemical Material Agency Tooele Chemical Agent Disposal Facility Field Office in its Oversight of the Tooele Chemical Agent Disposal Facility Systems Contract and Integration Among All Sites

Science Applications International Corp.
San Diego, CA
\$9,879,138 December 10, 2010
By Research Development & Engineering Command Contracting Officer, Aberdeen Proving Ground, MD

Develop Signal Processing, Detection, and Data Fusion Algorithms to Provide a Multi-Threat Standoff Detection Capability in a Single Platform System

Lincoln University
Jefferson City, MO
\$1,887,362 December 9, 2010
By RDECOM Contracting Center-Edgewood, Aberdeen Proving Ground, MD

Fabrication and Delivery of Five Complete Lightguard Systems, Two Additional Sensors, a Recommended Concept of Operations, Risk Reduction Tests, Support of Govern Development Tests and Support of the In-Theater Early User Test Over a 12-Month Period

ChemImage Bio Threat, LLC
Pittsburgh, PA
\$17,183,197 December 9, 2010
By U.S. Army Space & Missile Defense Command, Huntsville, AL

In-service Support of the Integrated Biological Detection System (IBDS) Smiths Detection

Watford, United Kingdom
\$11,000,000 December 9, 2010
By UK Ministry of Defence, Whitehall, London, United Kingdom

Nerve Agent Antidotes

Meridian Medical Technologies
Columbia, MD
\$116,180,667 December 2, 2010
By Defense Logistics Agency Troop Support, Philadelphia, PA

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Contracts *cont.*

Analytical Chemistry Services for the National Toxicology Program

Research Triangle Institute
Research Triangle Park, NC
\$34,702,689 December 1, 2010
By Department of Health and Human Services, National Institutes of Health, Durham, NC

Phase IIa of the Individual Protection Ensemble Mannequin System (IPEMS)

Midwest Research Institute
Kansas City, MO
November 17, 2010
By JPEO-CBD, Joint Project Manager for Nuclear, Biological, and Chemical Contamination Avoidance JPM-NBC-CA, Falls Church, VA

Cooperative Threat Reduction Program Advisory and Assistance Services Support

Northrop Grumman Information Technology
McLean, VA
\$75,000,000 November 15, 2010
By Defense Threat Reduction Agency, Fort Belvoir, VA

Develop a National Center for Professional and Research Ethics in Science, Mathematics and Engineering

University of Illinois at Urbana-Champaign
Urbana, IL
\$5,000,000 November 12, 2010
By National Science Foundation, Arlington, VA

Provide Support Services Which Include Identification, Analysis, Selection, Testing and Evaluation of Solutions to Warfighter Requirements for Command, Control, Communications, Computer, Cyber, Intelligence, Surveillance, and Reconnaissance/ CBRNE Sensors and Sensor-Related Technology

University Multispectral Laboratory
Oklahoma State University
Stillwater, OK
\$6,800,020 November 16, 2010
By Space and Naval Warfare Systems Center Atlantic, Charleston, SC

Cooperative Threat Reduction Program Advisory and Assistance Services Support

Northrop Grumman Information Technology
McLean, VA
\$75,000 November 15, 2010
By Defense Threat Reduction Agency, Fort Belvoir, VA

Develop a New Bio-Defense System Capable of Rapidly Determining If a Person Has Been Exposed to a Biological Threat

Northrop Grumman Corporation
\$9,600,000 November 5, 2010
By Biomedical Advanced Research and Development Authority (BARDA), Washington, D.C.

Integrated Aircrew Ensemble

TIAX, LLC
Lexington, MA
\$78,314,206 November 4, 2010
By Air Force Materiel Command, HQ HSG - Human Systems Group, Brooks City-Base, TX

Qualifying Therapeutic Discovery Project

PharmAthene, Inc.
Annapolis, MD
\$850,000 (Grant) November 4, 2010
By U.S. Department of Health and Human Services, Washington, D.C.

Provide the Joint Program Manager for NBC Contamination Avoidance PDTESS (Product Director Test Equipment, Strategy and Support) With Final Design, Equipment and Materials Testing, and Installation of a Test System at The U.S. Army RDECOM, APG, MD

Midwest Research Institute
Kansas City, MO
\$35,500,000 November 1, 2010
By U.S. Army

Develop Defenses Against Potential Bioweapons

Morphotek Inc.
Woodcliff Lake, NJ
\$1,700,000 October 21, 2010
By U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, MD

Develop a Dengue Fever Vaccine Delivered Without Needles

Inviragen
Fort Collins, CO
PharmaJet
Golden, CO
\$15,500,000 October 8, 2010
By National Institute of Allergy and Infectious Diseases, Bethesda, MD

Tooele Chemical agent Disposal Facility Operations, Maintenance, and Closure

EG&G Defense Materials, Inc.
Tooele, UT
\$55,000,000 October 4, 2010
By U.S. Army Contracting Command, Rock Island Contracting Center, Rock Island, IL

Phase II of the Individual Protection Ensemble Mannequin System (IPEMS) Contract Which Includes the Fabrication, Installation, Verification, and Validation of the IPEMS

Midwest Research Institute
Kansas City, MO
\$7,255,311 October 14, 2010
By U.S. Army Research, Development & Engineering Command Contracting Center, Aberdeen Proving Ground, Edgewood Contracting Division, Aberdeen Proving Ground, MD

Radiation/Nuclear Medical Countermeasure Product Development Support Services

University of Maryland School of Medicine
Baltimore, MD
\$9,996,497 September 30, 2010
By Department of Health and Human Services, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Bethesda, MD

Hazardous Materials Course

Focus on WMD Attack and Response

By Shannon Arledge, CDP Public Affairs

The threats against America and its citizens has become real, and the need for ready responders is ever more critical. Response personnel must remain vigilant, and skilled with the preparedness knowledge to protect the citizens and cities they serve.

An organization or community should not question its readiness or the abilities of its response forces. The Center for Domestic Preparedness (CDP), located in Anniston, Alabama, plays a leading role in preparing cities and local response forces to protect, prevent, deter, and respond to acts of terrorism or major accidents involving hazardous or toxic materials, or events resulting in mass casualties.

“The emergency response community in the United States needs to avoid complacency and continue to prepare for a wide range of potential terrorist attacks that will likely include chemical, biological, radiological, or explosive material,” said Rick Dickson, assistant director for training delivery.

He went on to add, “Many independent reports highlight the potential for attacks based on threat assessments, and in many cases specify a reality that the potential use of weapons of mass destruction is still ever present.” Dickson further stated, “Training is a critical element of preparedness, and the center’s fully funded training opportunities for state, tribal, and local emergency responders, are designed to prepare individuals and teams for what may be reality.”



First responders survey a grim scene following a simulated explosion of an office building. These responders are attending the Hazardous Materials Technician (HT) course at the Center for Domestic Preparedness, located in Anniston, Alabama. The three-day course places the students in a variety of situations and protective equipment—responding to a potential crime scene involving hazardous substances.

The Hazardous Materials Technician (HT) for CBRNE Incidents course provides students an overview of the international and domestic threats with a spotlight on identification and decontamination of biological or chemical hazards. The course also includes hazardous materials technical training for operating in an all-hazards environment and preservation of crime scene evidence. The HT course presents training that incorporates advanced competencies, technology, and tactics that focus on the specific threats associated with chemical, biological, radiological, and explosive material.

“After attending the course I have a lot more confidence in the [personal protective equipment (PPE)] I wear,” said Kevin Burns,

a member of his hospital’s decontamination team in Fort Worth, Texas. “There’s also a lot of information about Weapons of Mass Destruction (WMD). I feel that I have a better awareness about the threats and how to protect the public, stay prepared, and respond if something happens.”



A small amount of nerve agent is placed on a cold surface prior to the entry of Hazardous Materials Technician (HT) students at the Center for Domestic Preparedness in Anniston, Alabama. The HT course presents training that incorporates advanced competencies, technology, and tactics that focus on the specific threats associated with chemical, biological, radiological, and explosive material. The HT course culminates at the Chemical, Ordnance, Biological, and Radiological (COBRA) training facility—the only training site of its kind for civilian emergency responders. Working with nerve agents GB (Sarin) and VX the students respond to a scenario to rescue and protect citizens, preserve evidence, and locate and identify the toxic substance.

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First responders attending the Hazardous Materials Technician (HT) course at the Center for Domestic Preparedness, located in Anniston, Alabama, respond to a simulated incident involving a toxic substance. The responder's key mission is to save lives and decontaminate survivors before making further entry. The course extends three days and quickly moves the students from the classroom to hands-on experience—responding to a potential crime scene involving hazardous substances. These drills allow students to practice and reinforce their new skills and knowledge in a realistic training environment.

“Responders should expect to walk away with their current set of skills enhanced,” said Rob Low, CDP course manager of hazardous materials programs. “This course is designed for someone with a basic level of hazmat knowledge. We send them away with an understanding of technician level operations.”

The course extends three days and quickly moves the students from the classroom to hands-on experience—responding to a potential crime scene involving hazardous substances. These drills allow students to practice and reinforce their new skills and knowledge in a realistic training environment. The exercise areas are enhanced with realistic props, loud and confusing noise, alarms, and theatrical smoke. The responders enter with just the assistance of their response equipment and a handheld flashlight.

“You get just enough classroom and then you are in the field doing it real-world,” said David Luster an incident responder with Oregon’s state highway department. “I am very confident. We performed to a standard; not taking advantage of this funded training is no one’s fault but your own.”

The CDP is operated by the federal government and provides civilian training in Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) events. The CDP fully funds all training—including airfare, lodging and meals.

The HT course culminates at the Chemical, Ordnance, Biological, and Radiological (COBRA) training facility—the only training site of its kind for civilian emergency responders. Working with nerve agents GB (Sarin) and VX the students continue the scenario to rescue and protect citizens, preserve evidence, and locate and identify the toxic substance.

“I definitely think that the fact we worked with a toxic agent stepped it up a notch compared to the standard drills responders perform,” said Catherine Brennan, a university chemical hygiene officer from Chapel Hill, North Carolina. “Working in a room with real nerve agent was a great experience. I feel more confident and prepared.”

“Our objective is to make sure the student leaves here with a solid understanding of hazardous materials and WMD,” said Butch Tolbert, WMD hazardous materials instructor. “HT is a challenging course. The responders can take these challenges and incorporate their past experience to develop a positive response if it is needed in their home jurisdictions.”

The CDP is a component of the Federal Emergency Management Agency’s National Training and Education Division in the Department of Homeland Security. The Anniston training center is the nation’s only federally-chartered Weapons of Mass Destruction (WMD) training facility for civilian responders.

More information regarding this course can be found at <http://cdp.dhs.gov>. Locate resident training and link to Program A. 

About the CDP

FEMA’s Center for Domestic Preparedness (CDP), located in Anniston, Alabama, is the United States Department of Homeland Security (DHS)’s only federally chartered Weapons of Mass Destruction (WMD) training center.

The CDP develops and delivers training for emergency response providers from state, local, and tribal governments and, when appropriate, the federal government, foreign governments, and private entities.

Visit the CDP online at <http://cdp.dhs.gov/about.html>



Nuclear Pioneer Visits Kirtland AFB

By John Cochran, 377th Air Base Wing Public Affairs



(above and right) Leon D. Smith gives a presentation November 19, 2010 at Kirtland AFB to Airmen of the 898th Munitions Squadron about his experiences in the Army during World War II. U.S. Air Force Photos by Todd Berenger.



He addressed the fuzing group's experiences in the summer of 1945 on Tinian, a Pacific island in the Northern Marianas chain, where they continued flight-test activities and prepared "Little Boy" and "Fat Man" for delivery.

"As one of three weaponeers in the program, I lost a coin flip or I would have been on the Enola Gay on the August 6 mission over Hiroshima," Mr. Smith said.

He answered what he said is the most common question people ask him—"How did you feel when the bomb was dropped on Hiroshima?"

"It had been a long war, with fierce battles and high casualties on both sides. It was estimated that in the planned land invasion of Japan, the U.S. would lose 1 million more soldiers. I felt a sense of relief because the war would soon be over," he said.

Mr. Smith also talked of his role as a weaponeer for the first postwar nuclear test in 1946.

After the war, he left the Army to join the bomb fuzing group at Sandia National Laboratories [SNL], when it was attached to the Los Alamos Scientific Laboratory. During his 40-year SNL career, he initiated systems engineering in 1955 and directed the components, weapons development, and monitoring systems groups before retiring in 1988.

Mr. Smith ended his presentation by quoting British Prime Minister Winston Churchill, who spoke to the U.S. Congress in January 1952 about the value of maintaining an effective nuclear deterrent.

"Be careful above all things not to let go of the atomic weapon until you are sure, and more than sure, that other means of preserving peace are in your hands." ♦

View the original article online at <http://www.kirtland.af.mil/news/story.asp?id=123233265>

Kirtland Air Force Base welcomed a pioneer in the Air Force's nuclear enterprise November 19, 2010.

Leon D. Smith was drafted into the Army during World War II, serving as a private in the field artillery, and then was sent to study communications at Yale, electronics at Harvard and radar at the Massachusetts Institute of Technology. After being commissioned as an Air Corps second lieutenant, he participated in the development, testing and combat delivery of the atomic bombs that helped end the war.

During his visit to Kirtland AFB, Mr. Smith gave a presentation to Airmen of the 898th Munitions Squadron about his wartime experiences.

The electrical engineer spoke about being chosen in 1944 for the seven-member fuzing group assigned to the 509th Composite Bombing Group and his subsequent experiences at Wendover Field, Utah, where the group conducted design and flight-testing activities under technical direction of Robert Brode, head of the Fuze Development Group at Los Alamos.



Calendar of Events

Do you have a CBRN Defense or Homeland Security course or event to add to our Calendar? Submit the pertinent information via email to cbrniac@battelle.org. The CBRNIAC reserves the right to reject submissions. For a more extensive list of events, view our online calendar at <https://www.cbrniac.apgea.army.mil/Products/Events/Pages/default.aspx>.

Apr 14–15	Third International Dialogue on Underwater Munitions Sopot, Poland http://underwatermunitions.org/index.html	Apr 27–28	Interplay of the Microbiome, Environmental Stressors, and Human Health Washington, DC http://www.nationalrep.org/
Apr 17–19	Emergency Services Management in Canada Montreal, Quebec http://www.cacp.ca/index/eventscontent?contentId=1034	May 1–5	2011 DoDIIS Worldwide Conference Detroit, MI http://www.ncsi.com/dodiis11/index.html
Apr 18–21	21st National Radiological Emergency Preparedness Conference Orlando, FL http://www.nationalrep.org/	May 1–5	2011 Integrated Medical, Public Health, Preparedness and Response Training Summit Grapevine, TX http://www.integratedtrainingsummit.org/
Apr 19–20	Counter Terror Expo London, UK http://www.counterterrorexp.com/	May 1–6	COURSE: Medical Management of Chemical and Biological Casualties APG, MD and Ft. Detrick, MD https://ccc.apgea.army.mil/courses/in_house/calendar.htm
Apr 21	21st Annual OSDBU Procurement Conference Chantilly, VA http://www.fbcinc.com/osdbu/agenda.aspx	May 2–3	Wrecks of the World: Hidden Risks of the Deep (WOW) II Linthicum Heights, MD http://www.americansalvage.org/wow/wowII/index.htm
Apr 25–29	SPIE Defense, Security, and Sensing Orlando, FL http://spie.org/defense-security-sensing.xml?WT.mc_id=RCaI-DSSW	May 2–5	2011 FLC National Meeting Nashville, TN http://www.federallabs.org/meeting/
Apr 25–29	Principles and Practices of Radiation Safety: Occupational and Environmental Radiation Protection Boston, MA https://ccpe.sph.harvard.edu/programs.cfm?CSID=OERP0411&pg=cluster&CLID=1	May 2–5	2011 Joint Service Power Expo Myrtle Beach, SC http://www.ndia.org/meetings/1670/Pages/default.aspx
Apr 26–27	DOSE RESPONSE 2011 – 10th Annual International Conference on Implications for Toxicology, Medicine, and Risk Assessment Amherst, MA http://www.belleonline.com/events.htm	May 3–4	Disaster Response & Recovery Exposition Grapevine, TX http://events.jspargo.com/drre11/public/enter.aspx
Apr 26–27	Partners in Emergency Preparedness Tacoma, WA http://capps.wsu.edu/emergencyprep	May 3–5	2011 National Cyber Terrorism Conference San Diego, CA http://foundryusa.ettend.com/
Apr 26–28	International Symposium on Agroterrorism (ISA) Kansas City, MO http://www.fbi-isa.org	May 4–5	WMD Center Annual Symposium Washington, DC http://www.ndu.edu/WMDCenter/index.cfm?secID=260&pageID=36&type=section
		May 8–11	International Conference on Information Systems for Crisis Response and Management – ISCRAM 2011 Lisbon, Portugal http://iscram2011.lnec.pt/

Continued pg. 13

Calendar *cont.*

May 9–12	Disaster Forum 2011 Alberta, Canada http://www.disasterforum.ca/	Jun 7–10	REAC/TS COURSE: Radiation Emergency Medicine (REM) Oak Ridge, TN http://orise.orau.gov/reacts/capabilities/continuing-medical-education/radiation-emergency-medicine.aspx
May 9–12	Environment, Energy Security & Sustainability (E2S2) Symposium & Exhibition New Orleans, LA http://e2s2.ndia.org/Pages/Default.aspx	Jun 7–10	13th EAN Workshop on ALARA and the Medical Sector Oslofjord, Norway http://conferences.nrpa.no/alara2011/default.aspx
May 10–12	5th annual Specops Warfighter Expo West Joint Base Lewis–McChord, Washington http://www.specopswest.com/	Jun 8–9	2011 C-TPAT Supply Chain Security Training Seminar New Orleans, LA http://cbp.gov/xp/cgov/trade/cargo_security/ctpat/registration_notice.xml
May 16–18	Fourteenth Annual Conference on Vaccine Research Baltimore, MD http://www.nfid.org/conferences/vaccine11/	Jun 9–12	Joint Senior Leaders Course (JSLC) Fort Leonard Wood, MO https://www.intelink.gov/wiki/Joint_Senior_Leader_Course
May 16–19	43rd National Conference on Radiation Control Austin, TX http://www.crcpd.org/	Jun 13–Jul 22	Nuclear Forensics Undergraduate Summer School 2011 Pullman, WA http://institute.lanl.gov/institutes/application/
May 17–18	2011 CBRN Survivability Conference Baltimore, MD http://www.ndia.org/meetings/1350/Pages/default.aspx	Jun 18–24	ICRER-2011 — 3rd International Conference on Radioecology and Environmental Radioactivity Ontario, Canada http://www.icrer.org/
May 17–19	2011 Special Operations Forces Industry Conference Tampa, FL http://www.ndia.org/meetings/1890/Pages/default.aspx	Jun 19–22	World Conference on Disaster Management (WCDM) Toronto, Canada http://www.wcdm.org/Home.html
May 21–24	ASM General Meeting New Orleans, LA	Jun 19–23	47th Annual DIA (Drug Information Association) Chicago, IL http://www.diahome.org/DIAHome/Home.aspx
May 22–27	ISR D-14 — 14th International Symposium on Reactor Dosimetry Bretton Woods, NH http://www.reactordosimetry.com/	Jun 20–23	2011 USPHS Scientific & Training Symposium “Public Health Leadership: The Key to a Healthier Nation.” New Orleans, LA http://www.phscofevents.org/
May 23–Jun 6	Summer 2011 Nuclear Boot Camp Allumiere near Rome, Italy http://www.wilsoncenter.org/index.cfm?topic_id=643248&fuseaction=topics.item&news_id=648578	Jun 21–23	5th French National Congress of Radiation Protection SFRP 2011 Tours, France http://www.sfrp.asso.fr/spip.php?article381
Jun 6–10	Radiation Safety Officer Training for Laboratory Professionals Boston, MA https://ccpe.sph.harvard.edu/programs.cfm?CSID=RS00611&pg=cluster&CLID=1	Jun 21–23	5th Annual CounterACT Network Research Symposium Washington, DC http://www.ninds.nih.gov/research/counterterrorism/Upcoming_Events.htm
Jun 6–10	COURSE: Field Management of Chemical and Biological Casualties APG, MD https://ccc.apgea.army.mil/courses/in_house/FCBC.htm		
Jun 7–8	MCI Management Conference Boston, MA http://www.masscasualtyconference.com/		



New CBRNIAC Information Resources

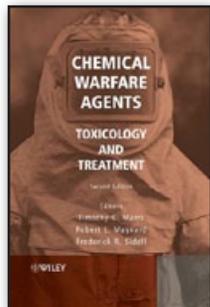
Bergen, Peter, and Bruce Hoffman. **Assessing the Terrorist Threat.** Washington, DC: Bipartisan Policy Center, 2010. <http://www.bipartisanpolicy.org/sites/default/files/NSPG%20Final%20Threat%20Assessment.pdf>

“Al-Qaeda and allied groups continue to pose a threat to the United States...This report is based on interviews with a wide range of senior U.S. counterterrorism officials at both the federal and local levels, and embracing the policy, intelligence, and law enforcement communities, supplemented by the authors’ own research.” *(Executive Summary)*



CB-153754
Bipartisan Policy Center
1225 I Street, NW
Suite 1000
Washington, DC 20005
Phone: (202) 204-2400

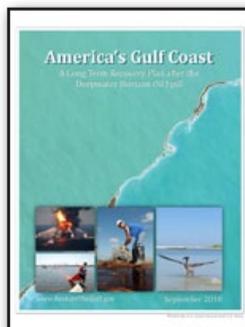
Marrs, Timothy C., Maynard, Robert L., and Frederick R. Sidell, eds. **Chemical Warfare Agents: Toxicology and Treatment.** Second Edition. West Sussex, England: John Wiley and Sons Ltd., 2007.



“*Chemical Warfare Agents, Second Edition* has been totally revised since the successful first edition and expanded to about three times the length, with many new chapters and much more in-depth consideration of all the topics... This book provides a comprehensive review of chemical warfare agents, assessing all available evidence regarding the medical, technical and legal aspects of their use.” *(Description)*

CB-153737
ISBN 978-0-470-01359-5
John Wiley and Sons Ltd.
The Atrium
Southern Gate, Chichester
West Sussex PO19 8SQ
England
Phone: (44)1243-779777

Mabus, Ray. **America’s Gulf Coast: A Long Term Recovery Plan after the Deepwater Horizon Oil Spill.** New Orleans, LA: UAC Joint Information Center, 2010. <http://www.restorethegulf.gov/sites/default/files/documents/pdf/gulf-recovery-sep-2010.pdf>



“The Deepwater Horizon oil spill was one of the worst man-made environmental disasters our country has ever experienced. The oil spill has dramatically affected the lives, jobs, and futures of millions

of Gulf Coast residents...This report will focus on these three central requirements for recovery in the Gulf Coast: the environment; the economy; and health and human services... The report will also discuss the role of nongovernmental organizations and community service in addressing each of the three issue areas.” *(Preface)*

CB-157508
UAC Joint Information Center
1250 Poydras St. 14th Floor
New Orleans, LA 70113
Phone: (713) 323-1670

Public Health Preparedness: Strengthening the Nation’s Emergency Response State by State. Atlanta, GA: Centers for Disease Control and Prevention, 2010. http://www.bt.cdc.gov/publications/2010phprep/pdf/complete_PHPREP_report.pdf

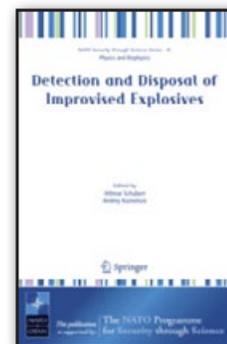


“To demonstrate how these federal investments are improving the nation’s ability to respond to public health emergencies, CDC has published three preparedness reports.⁸ This is CDC’s second report focusing on state preparedness activities, including capability-based performance measures for states and localities...” *(Executive Summary)*

CB-154986
Centers for Disease Control and Prevention
1600 Clifton Rd
Atlanta, GA 30333
Phone: (800) 232-4636

Schubert, Hiltmar and Audrey Kuznetsov, eds. **Detection and Disposal of Improvised Explosives.** Dordrecht, Netherlands: Springer, 2006.

“These proceedings contain the presentations and results of several discussions of the workshop on “Detection and Disposal of Improvised Explosives” held in St.-Petersburg, Russia, September 7–9, 2005. This Advanced Research Workshop was the fourth event concerning Detection of Explosives in connection with counter terrorism.” *(Preface)*



CB-154665
Springer
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The Netherlands
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9th Area Medical Laboratory Successfully Completes Culminating Training Event

By Christopher Bush, 20th Support Command (CBRNE) Public Affairs

After months of preparation and training, the Soldiers of the 9th Area Medical Laboratory (AML) successfully completed a rigorous culminating training event January 20, 2011.

The multi-day event, which brought together experts from the Edgewood Chemical and Biological Center (ECBC), the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), and the U.S. Army Public Health Command (PHC), was designed to prepare the unit for an upcoming deployment later in the year.

"This Culminating Training Event validated the tough training that we have done over the past year to prepare our Soldiers for our upcoming deployment," 9th AML commander Col. Rachel Armstrong stated in an email. "We brought in technical experts from ECBC, USAMRIID, and PHC to validate our technical abilities at the individual level and we received high marks in all of the areas observed."

The highly-trained Soldiers of the 9th AML are a unique unit within the Department of Defense. They are able to deploy world-wide as a unit or by task-organized teams to perform surveillance, confirmatory analytical laboratory testing and health hazard assessments of environmental, occupational, endemic and chemical, biological, radiological, nuclear, and explosive threats in support of force protection and weapons of mass destruction missions.

"The 9th AML prides itself on its technical knowledge and expertise. The 9th AML worked very hard this past year with the Public Health Command to increase our Force Health Protection mission," Armstrong stated. "We regard a fully deployed Area Medical Laboratory as a force multiplier – providing actionable information to commanders in theater. I am very proud of this unit and we are all ready to support the Warfighters."

During the training event, Soldiers travelled to a simulated Forward Operated Base outside the post to gather samples of air, water, and soil and returned to their mobile laboratories set up on post. Upon return, the collected samples were tested by the Soldier-scientists of the 9th AML.

"I checked the different properties that the samples may have like chlorine, temperature and pH levels to see if there are any spikes in those that might be important," said Spc. Aisa Catherman, a preventive medicine specialist.

These types of tests and procedures are critical for the health and safety of servicemembers and civilians operating in challenging environments downrange.

Engineers worry about the impact Soldiers make on the environment, 9th AML Soldiers worry about the impact of the environment on the Soldiers, Catherman said.



Spc. Robbie Carter, a laboratory technician for the 9th Area Medical Laboratory, goes through the testing process for air, water, and soil samples taken from a simulated forward operation base during the 9th AML's culminating training event January 20, 2011 at Aberdeen Proving Ground's Edgewood Area. (U.S. Army photo by Christopher Bush)

The hands-on training and real-world scenarios proved extremely beneficial to many of Soldiers, like Catherman, who are fairly new to the 9th AML and the Army.

"This training is really good practice for us. You get better with repetition and we have done a lot of this before during the regular workday but this gives us actual experience in a field setting," Spc. Daniel Davis, a laboratory technician said.

Davis' fellow lab tech Spc. Robbie Carter said he gained some additional insights during the CTE that he believed would help him during the upcoming deployment.

"We're learning different methods and different software. We just had some training at ECBC about some different things that we might see," Carter said. "Going out into the field and getting samples and getting a feel for how the whole process works is good."

The insights gained during the CTE and the various other training exercises the 9th AML has completed during their preparations will be critical to the safety and security of their fellow Soldiers in the field.

"This exercise has gone really smoothly," Staff Sgt. Willard Sponaugle Jr., Endemic Disease NCOIC, said. "We had everything we needed to accomplish whatever tests that we wanted to do." ♦

View the original article online at <http://www.cbrne.army.mil/9%20AML.htm>

Visit the 20th Support Command online at <http://www.cbrne.army.mil/index.htm>

Lab Team Wins Poster Award for Virus Research

By Stephen P. Wampler, Lawrence Livermore National Laboratory

A team of Lab researchers may be able to use rare mutations from the virus population of an animal host to distinguish between samples that previously appeared to be genetically identical.

Their work, done in collaboration with a researcher from the Richmond-based California Department of Public Health, won one of three outstanding poster awards at a Defense Threat Reduction Agency (DTRA) conference.

The three poster award winners were selected from among 588 posters that were presented at DTRA's Chemical & Biological Science & Technology Conference held recently in Orlando, Florida.

Information from the scientists' work could potentially be useful for forensic purposes, as well as determining the likelihood that a virus may jump from one species of animal to another, or from animals to human beings.

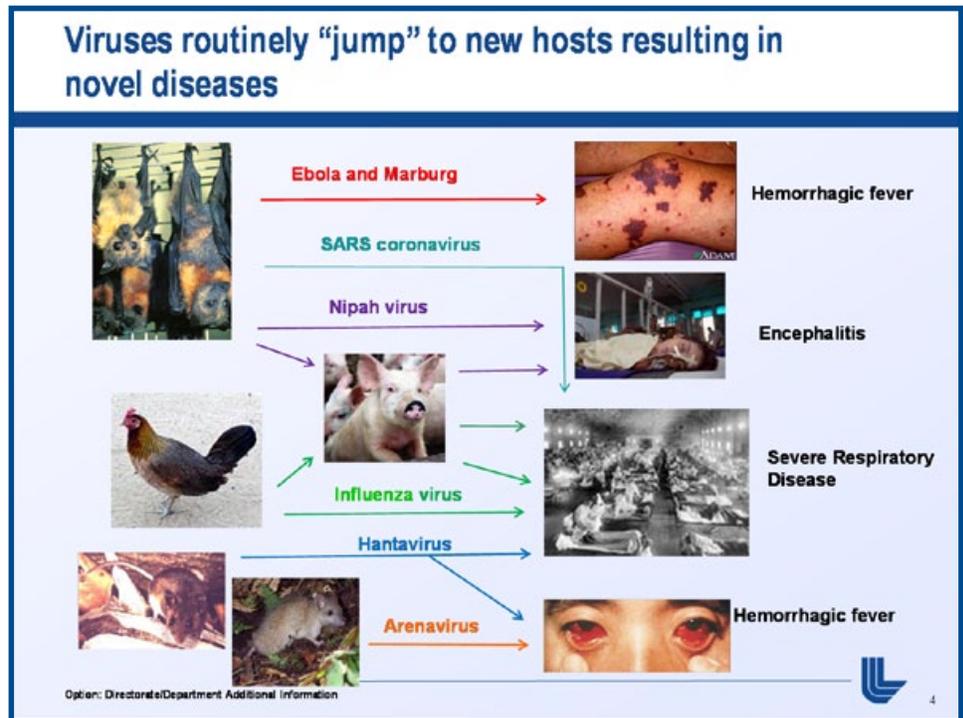
The Lab team is led by Monica Borucki, a biomedical scientist in Physical & Life Sciences, and includes Jonathan Allen and Clinton Torres, both bioinformatics scientists from Computation, and Tom Slezak, the associate Informatics program leader from Global Security. They are collaborating with Sharon Messenger of the California Department of Public Health.

"Understanding the evolution of RNA viruses is a major scientific problem that is essential for developing a better biodefense," Borucki said.

Backing up her point, Borucki noted that three-quarters of recently discovered pathogens are viral, that one to four new pathogenic viruses are discovered each year and that most of the viruses that jump to new species are viruses with genomes composed of RNA. Most of these viruses are animal viruses that "jump species" and infect humans.

At the DTRA conference, Allen presented data from preliminary experiments that involved ultra-deep Illumina sequencing on three different naturally infected samples—brain tissue from two rabid foxes that appear to be involved in a rabies host-jumping event and a nasal sample from a calf infected with bovine coronavirus.

Through the California Department of Public Health, Livermore scientists have received brain tissue samples of foxes that have apparently been bit by skunks, contracted rabies and attacked people or pets. In 2009, there was a 356 percent increase in the number of foxes contracting rabies in California, with most of these cases occurring in Humboldt County.



The Laboratory researchers have theorized that as the rabies have jumped from skunks to foxes the genes of the rabies virus have undergone changes.

"We're interested in understanding how a virus changes at the population level as it adapts from one host to another," Borucki said. "We're particularly interested in this area because many diseases move from animals to people."

The researchers' ultimate goal is to determine the probability of a specific animal virus jumping from animals to humans, Borucki noted.

While many research teams conduct genomic analysis on about 300 base pairs of the 12,000-base pair rabies genome, the LLNL team has performed this analysis on 11,000 base pairs. In addition, normally 1-30 viral genome copies are used in analysis, but the Lab team relied on some 300,000 viral genome copies.

"Although the rabies virus has jumped species multiple times in the past, the event is relatively rare and whole genomic sequencing analysis has never been applied to such an event," Borucki said.

During the next year, the team plans to analyze 50 different rabies samples from a naturally occurring host-jumping event (skunks to foxes in Northern California) and 35 different bovine coronavirus samples from a laboratory-simulated host-jumping event. This work is funded by the Defense Threat Reduction Agency as part of the Transformational Medical Technologies program. ♦

View the original article online at: https://www.llnl.gov/news/aroundthelab/2011/Feb/ATL-020411_virus.html



Home Defense Finds Home on Fort Leonard Wood

Emily Athens

myGuidon.com

January 20, 2011

"The Maneuver Support Center of Excellence Home Defense/Civil Support Office on Fort Leonard Wood has been formally recognized as an official organization by the Department of Army Headquarters, as of December 2010, and will consequently bring on 37 civilian and five military permanent employees to the work force."

http://www.myguidon.com/index.php?option=com_content&task=view&id=13022&Itemid=39

New Anthrax Vaccine Goes Through First Clinical Trial

UPI.com

December 29, 2010

"The next likely vaccine against anthrax poisoning either by accident or through acts of terrorism is going through initial clinical trials that will determine whether it can be used safely in case of an emergency."

http://www.upi.com/Business_News/Security-Industry/2010/12/29/New-anthrax-vaccine-goes-through-first-clinical-trial/UPI-29211293618960/

Hawaiian Professor Develops New Bioweapon Sensor

Pat Dulnier

Bio Prep Watch

December 28, 2010

"Researchers at the University of Hawaii and a Honolulu start-up company have developed a hyperspectral sensor system that may be able to detect harmful substances, including those involved in biological and chemical weapons, as well as those in the research, commercial and military industries."

<http://www.bioprepwatch.com/news/225442-hawaiian-professor-develops-new-bioweapon-sensor>

Thermo Fisher Scientific Supplies DoD With Portable Chemical & Explosives Identification Instruments

DomesticPreparedness.com

December 22, 2010

"Thermo Fisher Scientific Inc., the world leader in serving science, today announced that it has completed shipment to the U.S. Department of Defense of more than 270 Thermo Scientific FirstDefender RMX instruments, formerly sold under the Ahura Scientific brand."

http://www.domesticpreparedness.com/Industry/Industry_Updates/Thermo_Fisher_Scientific_Supplies_DOD_with_Portable_Chemical_%26_Explosives_Identification_Instruments/

ECBC Engineering Helps JPM-IP Lead the Way in Military Respiratory Protection

Don Kennedy

ECBC News Release No. 7

December 22, 2010

Each month the Joint Project Manager for Individual Protection (JPM-IP) fields 10,000–15,000 Joint Service General Purpose Masks (JSGPM) to the U.S. Armed Services—an achievement that would not be possible without the U.S. Army Edgewood Chemical Biological Center (ECBC).

http://www.ecbc.army.mil/pr/download/2010/22DEC2010_ECBC_Powers_New_Face_of_Protection.pdf

Russian Nuclear Waste Ship Launched in Italy

BarentsObserver.com

December 16, 2010

"The Italian Fincantieri shipyard today launched a ship designed to transport nuclear waste including spent fuel from Russian submarines."

<http://barentsobserver.com/russian-nuclear-waste-ship-launched-in-italy.4863147-116321.html>

U.S. and Cameroon Sign Agreement to Prevent Nuclear Smuggling

Defence iQ

December 14, 2010

"Last month, the National Nuclear Security Administration (NNSA) announced that it had signed an agreement with Cameroon to begin a cooperative effort to deter, detect and interdict illicit smuggling of nuclear and other radioactive materials."

<http://www.defenceiq.com/article.cfm?externalID=3649>

IAEA Low Enriched Uranium Reserve

International Atomic Energy Agency Factsheet

December 2010

"On 3 December 2010, the IAEA Board of Governors authorized the IAEA Director General to establish a reserve of low enriched uranium (LEU), or an IAEA LEU bank. Owned and managed by the IAEA, the IAEA LEU bank will help to assure a supply of LEU for power generation."

http://www.iaea.org/Publications/Factsheets/English/iaea_leureserve.html

EPA Marks 40th Anniversary

EPA News Release

December 2, 2010

"Today marked the 40th anniversary of the U.S. Environmental Protection Agency, an event commemorated both by EPA staff and by outside groups and individuals in a variety of ways throughout the week."

<http://sharing.govdelivery.com/bulletins/GD/USA-EPA-10E42B>

First International Atomic Fuel Bank Opens in Russia

Global Security Newswire

December 2, 2010

"The first international nuclear fuel repository has opened at a uranium enrichment facility in Angarsk, Siberia, as part of a worldwide effort to stem nuclear weapons proliferation, Russia said yesterday."

http://gsn.nti.org/siteservices/print_friendly.php?ID=nw_20101202_9877

Russia Opens New Chemical Weapons Destruction Plant

GlobalSecurity.org

November 28, 2010

"Russia has launched a new facility to destroy its Soviet-era chemical weapons stockpiles, the country's technological watchdog Rostekhnadzor said."

<http://www.globalsecurity.org/wmd/library/news/russia/2010/russia-101128-rianovosti03.htm>

U.S. Will Expand Biosecurity Work to Africa, Official Says

Martin Matishak

Global Security Newswire

November 23, 2010

"The U.S. Cooperative Threat Reduction initiative will work to secure deadly pathogens in Africa to prevent their use as tools of bioterrorism, a key Defense Department official said yesterday."

http://www.globalsecuritynewswire.org/gsn/nw_20101123_8958.php

U.S. Army Completes Chemical Stockpile Destruction at Pine Bluff Chemical Agent Disposal Facility

CMA News Release

November 15, 2010

"The U.S. Army Chemical Materials Agency (CMA) announces the disposal of the last mustard agent-filled ton container in the chemical weapons stockpile of the Pine Bluff Arsenal, Ark."

<http://www.cma.army.mil/pressroom.aspx>

Nuclear Drill Puts National Focus on Kings Bay

Gordon Jackson

The Florida Times-Union

November 16, 2010

"As many as 1,800 military and civilian personnel from across the nation will participate in a simulated nuclear weapon incident at Kings Bay Naval Submarine Base beginning today."

<http://jacksonville.com/news/georgia/2010-11-06/story/nuclear-drill-puts-national-focus-kingsbay>

Antibiotics Research Subsidies Weighed By U.S.

Andrew Pollack

The New York Times

November 5, 2010

"Worried about an impending public health crisis, government officials are considering offering financial incentives to the pharmaceutical industry, like tax breaks and patent extensions, to spur the development of vitally needed antibiotics."

<http://www.nytimes.com/2010/11/06/health/policy/06germ.html>

Notice From the President on the Continuation of the National Emergency With Respect to Weapons of Mass Destruction

The White House Release

November 4, 2010

"The proliferation of weapons of mass destruction and the means of delivering them continues to pose an unusual and extraordinary threat to the national security, foreign policy, and economy of the United States; therefore, the national emergency first declared on November 14, 1994, and extended in each subsequent year, must continue."

<http://www.whitehouse.gov/the-press-office/2010/11/04/notice-president-continuation-national-emergency-with-respect-weapons-ma>

**Technology From GE Providing New Radiation Detection Methods
GE Energy Press Release**

October 25, 2010

"GE announces an addition to its Reuter Stokes product line, a radiation detection solution using boron-10 (10B) to detect radiation in homeland security applications."

http://www.gepower.com/about/press/en/2010_press/102510.htm

FEMA and American Red Cross Partnership Will Strengthen Mass Care During a Disaster

FEMA News Release

October 22, 2010

"Today the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) and the American Red Cross signed a Memorandum of Agreement (MOA) that sets the framework for the Red Cross and FEMA to jointly lead the planning and coordination of mass care services, which will strengthen and expand the resources available to help shelter, feed, provide emergency first aid and deliver supplies to survivors of a disaster."

<http://www.fema.gov/news/newsrelease.fema?id=53086>

New X-ray Imaging to Aid Nuclear Detection

GSN Magazine

October 19, 2010

"The U.S. government's nuclear security agency has come up with a new software tool that will provide better image analysis and detection for nuclear counterterrorism operations."

http://www.gsnmagazine.com/node/21656?c=cbrne_detection

Researchers Tout Combination Anthrax-Smallpox Vaccine

Chris Schneidmiller

Global Security Newswire

October 8, 2010

"A team of U.S. researchers has developed a single vaccine that appears to provide protection against both anthrax and smallpox, two lethal diseases that top the list of potential bioterrorism agents."

http://www.globalsecuritynewswire.org/gsn/nw_20101008_9204.php

Global Strike Command Reaches Full Operational Capability

U.S. Air Force News Release

October 1, 2010

"Officials declared Air Force Global Strike Command to be at full operational capability Sept. 30, on schedule, and less than 14 months after its initial activation as a command."

http://www.af.mil/news/story.asp?id=123224563php?ID=nw_20101202_9877



DDR&E Now ASD(R&E)

On January 7, 2011, President Obama signed the National Defense Authorization Act that set forth a number of redesignated positions within the Department of Defense. These changes included the Director, Defense Research and Engineering, that will now be the Assistant Secretary of Defense for Research and Engineering or ASD(R&E).

See <http://www.acq.osd.mil/ddre/> for more details.

CBRNIAC Information Products



All products are unclassified unless otherwise noted.

CBRNIAC Forums



CBRNIAC Forum: Bioforensics Resources and Repositories

U.S. Government Agencies and Their Contractors Only; For Official Use Only

CR-10-23 \$10.00 March 2010

<https://www.cbrniac.apgea.army.mil/Products/Catalog/Pages/ViewItem.aspx?ID=CR-10-23>



Emerging CBRN Defense R&D Requirements

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CBRNIAC Success Story

Support to Navy Expeditionary Combat Command Surgeon



Customer

Force Surgeon, Navy Expeditionary Combat Command.

Challenge

Under its Technical Area Task (TAT) program, the Chemical, Biological, Radiological and Nuclear Defense Information Analysis Center (CBRNIAC) assisted the Force Surgeon, Navy Expeditionary Combat Command (NECC) in addressing critical NECC requirements in chemical, biological, radiological and nuclear (CBRN) defense. In response to these requirements for independent outside support, CBRNIAC provided health service support, force health protection, CBRN expertise, technical services, aided the NECC Force Surgeon in medical planning, logistics, training, and on demand medical/CBRN subject matter experts (SMEs) and reach back.

Approach

CBRNIAC SMEs and technical staff were engaged to provide research and analysis, technical health service support for NECC's diverse operational units and missions, establish and coordinate an integrated medical logistics program, assess, establish, and implement formal training for NECC medical forces, and provide medical CBRN reach-back for consultation, situational analysis, and course of action recommendations.

Value

The CBRNIAC delivered a full range of critical medical CBRN Defense support and information to meet NECC's requirements in this area. Feedback to date indicates that CBRNIAC has been successful in meeting NECC's needs within schedule and budget parameters.

Let the CBRNIAC Technical Area Task (TAT) Program provide cost-effective, real-time project support.

TATs provide a pre-competed, convenient and responsive task-order contract vehicle for life-cycle coverage from basic research through fielding. TATs can include:

- Studies and Analyses
- Hardware Development
- Technical Consulting
- Training Courses
- Information Collection and Compilation

- Design and Development of Models, Simulations, and Databases
- Support of Conferences, Symposia, Working Groups
- Test and Evaluation of Materials, Components, and Systems
- Laboratory Studies (including Surety work)
- Engineering Design, Prototyping, and Low-rate Production

TATs provide valuable analysis and Research and Development (R&D) solutions to tough chemical, biological, radiological, and nuclear (CBRN) defense and homeland security problems. TATs create new Scientific and Technical Information (STI) which is readily accessible to the CBRN Defense community. This saves federal resources by encouraging the re-use of STI.

For more information, visit our web site at <https://www.cbrniac.apgea.army.mil/TAT/Pages/default.aspx> or send an email to cbrniac-tat@battelle.org

2011 User Survey

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This information will help us improve our services to the CBRN Defense and Homeland Security communities.

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thank you!



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