

Dedicated to the Military Medical & VA Community

Military Medical/CBRN Technology

**Medical
Catalyst
Rear Adm.
Michael H.
Mittelman**

**Medical Service
Corps
Command Surgeon,
U.S. Joint Forces
Command**

www.MMT-kmi.com

MMT

April/May 2009

Volume 13, Issue 2

**Chem/Bio Early Warning * Congressionally Directed Medical Research
Directorate of Medical Materiel * Joint Task Force Civil Support**

Have you visited our Website lately?

If you read *Military Medical/CBRN Technology* magazine, you will want to visit the new and improved MMT online.

www.mmt-kmi.com



Current Issue

Advertiser

Subscriber

Events

Resources

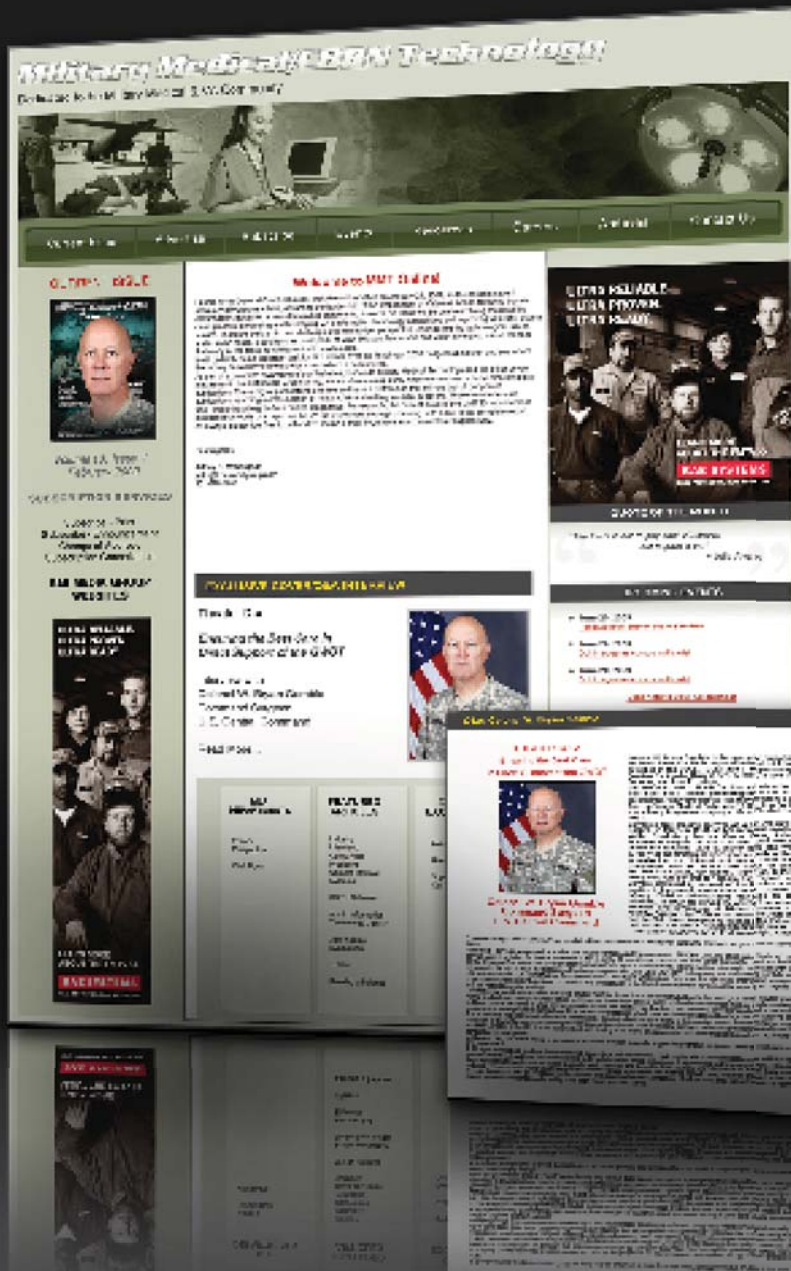
Careers

Articles

Search



- ▶ Discover the latest initiatives, brought to you by DoD and Congress
- ▶ Exclusive interviews with senior special ops leadership
- ▶ Extensive industry updates
- ▶ Online industry profiles



Contact Us

TO LEARN MORE ABOUT THE NEW MMT ONLINE CONTACT:

Sonia Bagherian, Associate Publisher ■ (301) 670-5700 Ext. 127 ■ soniab@kmimediagroup.com

FEATURES



6

Joint Task Force Civil Support Provides a Helping Hand

The Joint Task Force Civil Support (JTF-CS), which is part of the CBRNE Consequence Management Resource Force (CCMRF), is an agency designed to offer support after a chemical, biological, radiological, nuclear or high-yield explosive incident.
By Kenya McCullum



10

Putting the Risk Back Into Research

The Congressionally Directed Medical Research Program expands the boundaries of research innovation with funding and direction.
By Al Staropoli



22

Directorate of Medical Materiel

As the Department of Defense Executive Agent for Medical Materiel, the DLA Medical Directorate provides \$4.2 billion worth of medical materiel and services each year to DoD and its other federally funded customers.
By Colonel Marsha A. Langlois



24

Staying Ahead of the Threat

The Chemical Biological Distributed Early Warning Strategy directly addresses two of the warfighter's highest priorities—standoff detection and integrated early warning.
By Joan Michel

COVER / Q&A



16

Rear Admiral Michael H. Mittelman
Medical Service Corps
Command Surgeon,
U.S. Joint Forces Command

DEPARTMENTS

- 2 Editor's Perspective
- 3 CIO Report
- 4 People
- 5 Program Notes
- 14 Vital Signs
- 27 Calendar, Directory

INDUSTRY INTERVIEW



28

Richard A. Jozefowski
Communication Systems Division
Senior Director, Business Development
Telephonics

MILITARY MEDICAL/CBRN TECHNOLOGY

VOLUME 13, ISSUE 2 APRIL/MAY 2009

Dedicated to the Military Medical & VA Community

EDITORIAL

Editor

Ted McKenna tedm@kmmidiagroup.com

Managing Editor

Harrison Donnelly harrisd@kmmidiagroup.com

Copy Editors

Regina Kerrigan reginak@kmmidiagroup.com
Diana McGonigle dianam@kmmidiagroup.com

Correspondents

Kenya McCullum • Joan Michel • Al Staropoli

ART & DESIGN

Art Director

Anna Druzcz anna@kmmidiagroup.com

Graphic Designers

Scott Morris scottm@kmmidiagroup.com
Anthony Pender anthony@kmmidiagroup.com
Jittima Saiwongnuan jittimas@kmmidiagroup.com

Production Assistant

Eve Parker evep@kmmidiagroup.com

ADVERTISING

Associate Publisher

Sonia Bagherian soniab@kmmidiagroup.com

KMI MEDIA GROUP

President and CEO

Jack Kerrigan jack@kmmidiagroup.com

Executive Vice President

David Leaf davidl@kmmidiagroup.com

Vice President of Sales and Marketing

Kirk Brown kirkb@kmmidiagroup.com

Editor-In-Chief

Jeff McKaughan jeffm@kmmidiagroup.com

Controller

Gigi Castro gcastro@kmmidiagroup.com

Publisher's Assistant

Carol Ann Barnes carolannb@kmmidiagroup.com

OPERATIONS, CIRCULATION & PRODUCTION

Circulation Coordinator

Jerry Simpson jerrys@kmmidiagroup.com

Circulation Specialists

Beatrice Brannon beatriceb@kmmidiagroup.com
Dena Granderson denag@kmmidiagroup.com
Davette Posten davettep@kmmidiagroup.com

MARKETING & ONLINE

Marketing & Online Director

Amy Stark astark@kmmidiagroup.com

Trade Show Coordinator

Holly Foster hollyf@kmmidiagroup.com

KMI MEDIAGROUP

A PROUD MEMBER OF



SUBSCRIPTION INFORMATION

Military Medical/CBRN Technology

ISSN 1097-1033

is published eight times a year by
KMI Media Group.

All Rights Reserved. Reproduction without permission is strictly forbidden. © Copyright 2009.

Military Medical/CBRN Technology is free to members of the U.S. military, employees of the U.S. government and non-U.S. foreign service based in the U.S.

All others: \$65 per year.
Foreign: \$149 per year.

Corporate Offices

KMI Media Group
15800 Crabbs Branch Way, Suite 300
Rockville, MD 20855-2604 USA
Telephone: (301) 670-5700
Fax: (301) 670-5701
Web: www.MMT-kmi.com

EDITOR'S PERSPECTIVE

The devil is always in the details, as we will likely see with the recent fiscal year 2010 budget outlines by Defense Secretary Robert Gates. Gates' road map for the budget spends \$1.4 billion per day, an increase of about 4 percent over FY09. Now he has to convince Congress of his direction and the outcomes. While a number of well-known programs face the ax—many coming as no surprise—spending on military health care and family care appears to be holding steady. While it will take some time for the particulars to be announced, the budget plans indicate a funding increase of about \$900 million. Medical research and development could also see \$400 million in new funding, continuing a trend of increased funding in the area.

One focus of this increased spending should certainly be programs helping those with brain injuries and psychological health issues. These programs have not seen the levels of support that they warrant. Funding needs to be done not on a supplemental basis but be institutionalized into the base budget.

FY10 should see the full implementation of a comprehensive TBI registry, including a single point of responsibility for tracking incidents and recovery. In addition, the National Intrepid Center of Excellence for psychological health and traumatic brain injury will be dedicated in the late fall of 2009. Overall spending will see an increase of about \$300 million. DoD is expected to spend more than \$47 billion in FY10.

Where exactly will all of this money go? As the new editor of *Military Medical/CBRN Technology*, I will be working with our correspondents and our other contributors to understand just what the details of the new budget will be. But as the reader, you may know best of all the merits of many of the individual aspects of the forthcoming budget.

Please feel free to contact me about just where you see the devil in the new budget, as well as any comments or suggestions about *MMT*.



Ted McKenna
tedm@kmmidiagroup.com
301-670-5700

KMI MEDIA GROUP FAMILY OF MAGAZINES AND WEBSITES

Military Medical/ CBRN Technology



www.MMT-kmi.com

Military Geospatial Technology



www.MGT-kmi.com

Military Logistics Forum



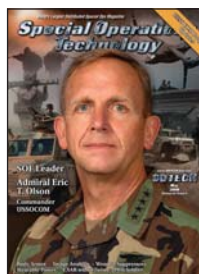
www.MLF-kmi.com

Military Space & Missile Forum



www.MSMF-kmi.com

Special Operations Technology



www.SOTECH-kmi.com

Military Information Technology



www.MIT-kmi.com

Military Training Technology



www.MT2-kmi.com

Military Advanced Education



www.MAE-kmi.com

This column is the first of what will be many submitted by Charles M. Campbell, the chief information officer for the Military Health System, appointed in September 2007. He is the principal advisor to the assistant secretary of defense for health affairs and to Department of Defense medical leaders on all matters related to information management (IM) and information technology (IT). Campbell works closely with Army, Navy and Air Force deputy surgeons general to ensure military health IT programs are well managed, comply with applicable statutes and policies, and align with the objectives of the MHS. He oversees the IM/IT program offices on all matters of acquisition, development, testing and deployment of software systems to the military, including AHLTA, the MHS's electronic health record.

Computer/Electronic Accommodations Program



Charles M. Campbell
Military Health System
Chief Information Officer

America has given the leaders of the Military Health System a humbling responsibility: to care for our country's fighting forces, their families and those who have served before us—more than 9.2 million people in all. Our health care team has performed exceptionally. We have achieved unprecedented outcomes from the foundation of a vibrant military medical culture—one based on innovation, service to others and an unrelenting persistence to achieve excellence.

One division of the MHS consistently makes an extraordinary effort to raise the quality of health care in a unique way. The Computer/Electronic Accommodations Program (CAP) provides free assistive technologies and services to federal employees with disabilities, wounded servicemembers, federal managers, supervisors and information technology professionals, increasing employment opportunities and access to the IT environment in the United States and abroad. CAP actively supports its mission of "providing real solutions for real needs" by increasing access to information and working to remove barriers to employment opportunities by eliminating the costs of assistive technology and accommodation solutions. "CAP is helping to make the federal government the model employer for people with disabilities," said Dinah Cohen, CAP director.

Since its inception in 1990 by the under secretary of defense for personnel and readiness, CAP, a TRICARE Management Activity program, has filled over 71,000 requests for accommodations for

federal employees and wounded servicemembers with visual, hearing, manual dexterity, communication and cognitive disabilities, including traumatic brain injuries. In addition to serving military departments and defense agencies, CAP partners with 65 other federal agencies, including the Equal Employment Opportunity Commission, to actively support wounded servicemembers during their recovery and rehabilitation. In fiscal year 2008, CAP provided over 4,500 accommodations to servicemembers and military treatment facilities throughout the nation, including Walter Reed and Brooke Army medical centers. CAP also partnered with several organizations to support disabled veteran re-employment efforts and attended Hiring Heroes career fairs.

CAP trains organizations to promote understanding of their mission and services in support of federal goals to increase employment opportunities for people with disabilities. This training provides instruction on how to integrate disability issues into the president's management agenda and how to create and manage essential elements of disability employment programs, including recruitment, placement, promotion and retention of people with disabilities.

Much of CAP's success lies in its ability to provide reasonable accommodations to employees quickly and easily, increasing employment and retention of employees with disabilities.

CAP services and staff help the severely wounded rejoin the work force and regain self-esteem as they build a career. CAP provides a range of support services to the military family, all with compassion and explicitly acknowledging the dignity of the servicemember and his or her family.

The Computer/Electronic Accommodations Program has won numerous awards for its work, including the Presidential Award for Management Excellence—the President's Quality Award for 2008—in the category of expanded electronic government. The award recognizes federal agencies that best achieve the objectives of the president's management agenda. The President's Quality Award is the highest award given to executive branch agencies for management excellence.



America's Military Health System is a unique partnership of medical educators, medical researchers, and health care providers and their support personnel worldwide. This DoD enterprise consists of the Office of the Assistant Secretary of Defense for Health Affairs; the medical departments of the Army, Navy, Marine Corps, Air Force, Coast Guard and Joint Chiefs of Staff; the combatant command surgeons; and TRICARE providers (including private sector health care providers, hospitals and pharmacies).

Programs like this represent exactly why we are here: to continuously care for our servicemembers to our very best ability. The work of the MHS is sacred. Caring for America's heroes is not a motto—it is what we do. Our commitment is to provide the strategy, policy and resources to achieve excellence. We are indebted to the sacrifice of our servicemembers and are honored to serve them.

For more information on CAP, please visit www.tricare.mil/. For more information, contact Karen Roberts, director, MHS OCIO communications at (703) 681-8836.

PEOPLE

Air Force **Major General Charles B. Green** has been nominated for appointment to the grade of lieutenant general with assignment as surgeon general of the Air Force, Headquarters U.S. Air Force, Pentagon, Washington, D.C. Green is currently serving as deputy surgeon general, Headquarters U.S. Air Force, Bolling Air Force Base, Washington, D.C.

Rear Admiral Gregory Timberlake has been assigned as director, Interagency Program Office, Department of Defense/Department of Veterans Affairs, Washington, D.C. Timberlake was most recently assigned as command surgeon, U.S. Joint Forces Command, Norfolk, Va.



Rear Adm. Christine M. Bruzek-Kohler

Rear Admiral Christine M. Bruzek-Kohler will be assigned as commander, Navy Medicine West/commander, Naval Medical Center/director of the Nurse Corps, San Diego, Calif. Bruzek-Kohler is currently assigned as deputy chief, medical operations, M3/5, Bureau of Medicine and Surgery/director of the Nurse Corps, Washington, D.C.

Navy **Rear Admiral (lower half) Matthew L. Nathan** has been nominated for appointment to the rank of rear admiral. Nathan is currently serving as commander, Navy Medicine Capital Area, and commander, National Naval Medical Center, Bethesda, Md.

Secretary of Defense Robert M. Gates has announced that the president has nominated Navy **Captain Brian P. Monahan** for appointment to the grade of rear admiral and assignment as attending physician to Congress. Monahan is currently serving as deputy attending physician to Congress.

President Barack Obama has announced his intent to nominate **L. Tammy Duckworth**, director of the Illinois Department of Veterans Affairs, to be the assistant secretary of Public and Intergovernmental Affairs for the Department of Veterans Affairs. As assistant secretary, Duckworth will direct VA's public affairs, internal communications and intergovernmental relations. She also will oversee programs for homeless veterans, consumer affairs and special rehabilitative events.

Pradeep G. Gidwani was recently appointed director of TRICARE Regional Office (TRO)—North. As the regional director, he is responsible for the management and performance of TRICARE contracts that serve more than 3.1 million beneficiaries across 24 states and the District of Columbia.

Colonel Michael W. Miller, who has been selected for the rank of brigadier general, senior executive and director of staff, Office of the Surgeon General, Headquarters U.S. Air Force, Pentagon, Washington, D.C., has been appointed to assistant surgeon general for medical plans and programs, Headquarters U.S. Air Force, Bolling Air Force Base, Washington, D.C.

Major General Robert J. Kasulke, U.S. Army Reserve, deputy surgeon general, mobilization, readiness and reserve affairs (individual mobilization augmentee), Office of the Surgeon General, Falls Church, Va., has been assigned to commanding general (troop program unit), Army Reserve Medical Command, Pinellas Park, Fla.

Brigadier General Craig A. Bugno, U.S. Army Reserve, commander (troop program unit), 2d Medical Brigade, San Pablo, Calif., has been assigned to deputy commander for professional services (troop program unit), 3d Medical Deployment Support Command, Forest Park, Ga.

Brigadier General James T. Cook, U.S. Army Reserve, commander (troop program unit), 415th Chemical Brigade, Greenville, S.C., has been assigned to commander (troop program unit), 91st Training Brigade (operations), Camp Parks, Calif.

Brigadier General David L. Smalley, U.S. Army Reserve, assistant surgeon general for mobilization, readiness and reserve affairs (individual mobilization augmentee)/deputy commanding general (troop program unit), Army Reserve Medical Command, Pinellas Park, Fla., has been assigned to deputy commander for professional services (troop program unit), 807th Medical Deployment Support Command, Salt Lake City, Utah.

Brigadier General Jonathan Woodson, U.S. Army Reserve, commander (troop program unit), 330th Medical Brigade, Fort Sheridan, Ill., has been assigned to assistant surgeon general

for mobilization, readiness and reserve affairs (individual mobilization augmentee)/deputy commanding general (troop program unit), Army Reserve Medical Command, Pinellas Park, Fla.

Army **Brigadier General Philip Volpe** has been nominated for promotion to the rank of major general. Volpe is currently serving as deputy commander, Joint Task Force-National Capital Region Medical, Bethesda, Md.



Col. William B. Gamble

Army **Colonel William B. Gamble** has been nominated for promotion to the rank of brigadier general. Gamble is currently serving as command surgeon, U.S. Central Command, MacDill Air Force Base, Fla.

Army **Colonel Richard W. Thomas** has been nominated for promotion to the rank of brigadier general. Thomas is currently serving as commander, U.S. Army Medical Department Activities, Fort Campbell, Ky.

Rear Admiral Christine S. Hunter will be assigned as deputy director, TRICARE Management Activity, Office of the Assistant Secretary of Defense for Health Affairs, Washington, D.C. Hunter is currently serving as commander, Navy Medicine West/commander, Naval Medical Center, San Diego, Calif.

PROGRAM NOTES

Cath Lab Data Solution

Lumedx Corp. and Mennen Medical have entered into a strategic partnership to provide a total, integrated cath lab data solution and seamless stream of hemodynamic cardiovascular patient data.

The agreement is part of both companies' desire to complement their individual product lines so that their mutual customers will enjoy a consolidated cath lab solution. Combining the CVIS and PACS software modalities of Lumedx with Mennen Medical's full suite of hardware products for the cath lab, including its new hemodynamic system—the Horizon XVu—its patient monitoring and its EP recording systems into one integrated system will provide a unique market solution.

This partnership will help heart centers perform cath lab procedures using an efficient and flexible workflow and continuous clinical patient data from the holding area, throughout the procedure room and into the recovery room.

Mennen Medical's new XVu System is embedded with an ultra modern interface and analysis system. Combined with user-friendly windows and an intuitive graphic interface, the system enables various layouts to suit both cardiac and peripheral angiography procedures. The small size of Mennen Medical's front-end vital signs acquisition unit, the CFE, allows it to be rail-mounted on the procedure table for maximum space utilization and comfort.

Randy Lasnick: randy.lasnick@lumedx.com

Stretcher



The Naval Medical Center, Portsmouth, Va., through the Fleet and Industrial Supply Center, Norfolk, Va., has indicated that it intends to acquire medical stretchers from Pedigo Products.

The Pedigo 750-W Stretcher has a 750-pound capacity and is designed to allow ease of transfer of patients, minimizing discomfort to patients and excessive lifting by

hospital personnel. The stretcher is equipped with a quick release O2 tank holder, which is located under the stretcher. This location provides for easy access, which reduces staff bending (decreasing staff back injuries). Equipped with a monitor tray board, the stretcher can carry a pre-mounted pulse oximetry monitor.

This acquisition is expected to be about \$165,770.

Image Company Acquisition

Expanding its capabilities to deliver complete medical imaging and health care solutions, Canon USA Inc. has acquired Virtual Imaging Inc. of Deerfield Beach, Fla. Established in 1995, Virtual Imaging is a provider of diagnostic imaging solutions and a medical systems integrator.

"Canon and Virtual Imaging have had a long-standing partnership that has benefited both companies over the years. This acquisition will position Canon well for future growth in the medical imaging and health care marketplace," said Joe Adachi, president and chief executive officer, Canon USA.

Virtual Imaging will play an integral role as Canon enters the medical fluoroscopic device market later this year with the introduction of a new portable flat panel DR system capable of both viewing dynamic and capturing static X-ray images.

Identifying Traumatic Brain Injuries

With awareness growing around the need for new ways to detect traumatic brain injuries, BrainScope Co. Inc. recently announced the completion of research on high school athletes with mild traumatic brain injury (mTBI) as part of an ongoing investigational study of its brain assessment device. This comes at a time when Congress seeks to accelerate the development of new treatments for neurological conditions with the recent neurotechnology bill, and the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury has issued a call for a uniform test for traumatic brain injury to be performed on all troops exposed to a blast or other violent event in wartime.

The company is continuing its research of mTBI in eight emergency departments nationwide with its data collection device. These brain function assessment tools under development are mobile, noninvasive, handheld wireless devices designed determine whether brain trauma has occurred and could poten-

tially be used to identify troops with traumatic brain injuries.

With its capabilities designed to meet the need for first-on-scene assessments of brain function—in an ambulance, emergency department, the sports field or battlefield—BrainScope's device focuses on the detection of traumatic brain injury. This new generation of technology in development will operate as a digital translator of electrical brain activity, allowing medical professionals to quickly obtain adjunct clinical information based on a quantitative assessment of a patient's need for further diagnostic evaluation and appropriate treatment.

"Clinical trials of BrainScope's brain function assessment devices are under clinical study to assess their capability to perform," said CEO Michael Singer. The company is researching advances in digital instrumentation by investigating brain electrical activity to enable rapid automated analysis of abnormalities in brain function.





Joint Task Force Civil Support Provides a Helping Hand

By **KENYA McCULLUM**
MMT CORRESPONDENT

THE TASK FORCE OFFERS A NUMBER OF SERVICES DURING EMERGENCIES, INCLUDING LOGISTICAL SUPPORT, SEARCH AND RESCUE SERVICES, AND ORGANIC MEDICAL SERVICES.

When there is an emergency, local governments have access to a valuable resource that they can use when their own responders are not enough to handle the problem. The Joint Task Force Civil Support (JTF-CS)—which is part of the CBRNE Consequence Management Resource Force (CCMRF), an agency designed to offer support after a chemical, biological, radiological, nuclear or high-yield explosive incident—is staffed with personnel trained to save lives, prevent injury and provide temporary critical life support to a community that needs assistance. When all of the available options on the local and state levels have been exhausted, governors can appeal to the federal government for the task force to supplement its efforts in keeping the public safe—at no charge to the state.

The use of JTF-CS is triggered only after a long chain of resources has been tapped into and proven insufficient to handle a problem. When an incident occurs, first local responders work to help the community. If those resources are not enough, the county and state responders augment those local efforts. If this is still not enough support, governors have the option of asking other state governors to supply national guards-

men through the Emergency Management Assistance Compact (EMAC), which allows states to share resources with each other during an emergency situation when necessary. If this is not enough support for the state's emergency, the governor will call a state of emergency and ask the president to declare the situation a national disaster. At that time, an appropriate federal agency—such as the Centers for Disease Control, Federal Emergency Management Agency (FEMA), or the U.S. Department of Health and Human Services—responds to the emergency.

After all of this, if the state still needs additional support to handle its emergency, the JTF-CS is deployed. The task force offers a number of services during emergencies, including logistical support, search and rescue services and organic medical services that will not potentially overload an already burdened local health care system.

“We know going in that the local facilities and hospital systems are already going to be overwhelmed. The last thing we want to do is have more casualties by bringing more people in that they're not going to be able to take care of,” said JTF-CS surgeon Joanne McManaman. “As we anticipate needs, or get

Most Biohazard Detection Systems Come with a 20% Error Rate



Shouldn't You Be More than 80% Prepared for an Attack?

Instruments using antibody-based detection are less reliable because of their high false negative rate. Their results need to be verified at a separate lab using PCR. Idaho Technology's portable biohazard detection system, the RAZOR EX utilizes the same PCR technology that health labs use without a need for in-depth knowledge of the science behind it. The RAZOR EX was made for HazMat and first responder teams that require more from a detection system.

The RAZOR EX is a complete product solution that is easy to setup, run, and read. Capable of testing ten bioterrorism agents in one run, the RAZOR EX provides more accurate results than other products in less than 30 minutes.

Visit our web site or call today and let us help you get the most trusted and accurate field portable detection system into the hands of your team.

Turn Your False Negatives Into Cash



Idaho Technology has many ways to help you get the best products for your team. For example, take advantage of our trade-in program by giving us your inferior antibody based detection system for cash towards the purchase of our more reliable PCR based detection system.



980 Lake City, Utah, USA
www.idtecht.com

missions coming down from our federal agencies, we'll be able to relocate and provide medical care based on what their needs are if they have a gap that they need to fill."

In addition to patient care, the JTF-CS provides medical surveillance and CBRNE detection, including testing biologic, soil and environmental samples. The task force is also involved in the distribution of assets from the Strategic National Stockpile (SNS) and veterinary care, such as animal decontamination.

To help provide these medical services, the JTF-CS is currently working to acquire the best equipment for its mission—such as devices that will allow it to monitor and identify radiological nuclear accidents. And because safety is paramount, the agency is also looking for equipment that will provide the best available protection for members of the unit while still allowing them to perform their duties.

"The most protection isn't necessarily the best answer because sometimes it can hinder your operation," said McManaman. "We're working very hard right now to figure out what is the best personal protection equipment that we can give our troops because they are going into dangerous environments."

Another challenge the agency faces is the number of staff it can access. Generally, members of the task force sign up for one year of service, but because of the number of troops that have been regularly deployed to Iraq and Afghanistan, JTF-CS has seen a lot of its staff leave early. As a result, it has added additional month-long training exercises to accommodate early arrivals that replace staff members when they have been deployed. Although it has been a challenge for the agency, the scheduling problem has been manageable.

In addition, JTF-CS has faced some reputation management issues—particularly with writers in the blogosphere who believe the task force's reach extends much farther than it actually does. In particular, the agency has been combating the rumor that it actually usurps the state government's authority and completely takes over the handling of an emergency, rather than simply provide assistance.

"If the CCMRF shows up, they're there to save lives, prevent injury and provide temporary critical life support to the community," said JTF-CS chief of staff Michael Collins. "The CCMRF does not have, nor will it ever have, any civil disturbance mission. It does not have any law enforcement responsibilities—that is strictly the role of the state police, county sheriff law enforcement personnel and national guardsmen, because all national guardsmen have a secondary law enforcement responsibility and the training."

As a result of this perception, Collins said it's important to set the record straight and educate the public on the good work JTF-CS does.

"We think it's a huge good news story, the fact that you've got approximately 5,000 Department of Defense men and women on alert who are ready to go out and help their fellow Americans in a time of an emergency," Collins said. ★

For more information, contact MMT Editor
Ted McKenna at tedm@kmmidiagroup.com
or search our online archives for related stories at www.MMT-kmi.com.

In a Time of **Chaos**...

RSDL[®] Neutralizes or Removes
ALL known Chemical Warfare Agents



FAST ACTING



EFFECTIVE



SAFE ON SKIN



Fast Acting, Effective & Safe on Skin, RSDL is
the **First** Line of Defense for Those Who Serve.

+1.888.RSD.econ • www.RSDecon.com

RSDL



Please see instructions for use and the decontamination kit.



RSDDecon
THE FIRST LINE IN CHEMICAL DEFENSE

107 College Road East • Princeton, NJ 08540 USA
Ph: +1.888.RSD.econ / +1.888.773.3266 • Fax: +1.609.514.2429

RSDDecon is a Business Unit of Bracco Diagnostics Inc.



Department of Health and Aging
Therapeutic Goods Administration

Putting the Risk Back Into Research

\$5.3 BILLION PROGRAM EXPANDS THE BOUNDARIES OF RESEARCH INNOVATION.

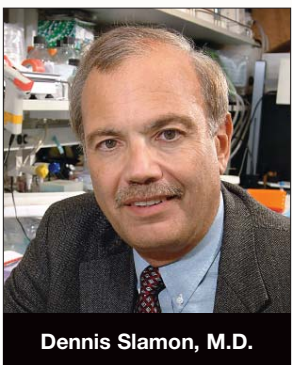
**By AL STAROPOLI
MMT CORRESPONDENT**

Thousands of patients would likely be dead today if it weren't for Herceptin, a drug approved in 1998 after nearly a decade of laborious development. The drug, which has been used to treat nearly 400,000 breast cancer patients worldwide, is the brainchild of Dennis Slamon, M.D., Ph.D., director of the Revlon/UCLA Women's Cancer Research Program. Incredibly, Herceptin was almost a no-show.

"At the time, we applied for other federal monies and most people didn't believe we could do this work and weren't very supportive," said Slamon, who was played by Harry Connick Jr. in the made-for-TV movie "Living Proof," which chronicles the development of Herceptin.

"The first peer-reviewed federal money came from the Congressionally Directed Medical Research Program (CDMRP)," added Slamon, who initially received funding in 1994. These monies were instrumental in allowing him and colleagues to develop a tumor tissue bank

so that they could study gene alterations in depth. Over time, they clarified and consolidated their knowledge on the HER2 gene alteration, which eventually led them to the development of Herceptin.



Dennis Slamon, M.D.



Capt. Melissa Kaime, M.D.



Todd Giorgio

might have metastatic breast cancer are also sitting with you," said Slamon. "And they may ask, 'This is elegant science, but how will that impact patients soon?' This reminds us that it isn't just about satisfying



BEGINNINGS

The Congressionally Directed Medical Research Program began in the early 1990s, when patients with breast cancer petitioned Congress to increase the amount of research funding for the disease. Advocates were eventually successful and persuaded Congress to appropriate \$210 million toward the disease.

Since then, the CDMRP has grown to fund research for more than a dozen illnesses, including autism, breast cancer, chronic myelogenous leukemia, osteoporosis, prostate cancer and amyotrophic lateral sclerosis (ALS). To date, the program has provided \$5.3 billion through 8,000 awards for more than 6,000 scientists.

From the get-go, the program was different. It involved consumers beyond traditional advocacy roles and incorporated them into the grant review process.

"While you're sitting at the table reviewing grants, knowledgeable patients who

our intellectual curiosity."

"We are very patient-centric," said CDMRP Director Captain Melissa Kaime, M.D. "What make us different from other agencies is that we focus on high-risk, high-reward research while involving advocates from the very start."

At the end of every year, the program needs to be accountable to consumers and Congress because monies are appropriated on a year-by-year basis, partially based on advocate suggestions.

How It Works

Early on, the CDMRP reached out to the National Academy of Sciences to determine the best way to invest the funds appropriated by Congress. One of the academy's recommendations was to establish a two-tier peer review process, which still stands today.

A scientific peer review panel reviews grants for scientific merit while a second panel of policymakers, consumer advocates and clinicians reviews the grants to provide a vision to guide the investment strategies and recommend a broad-based portfolio. Nearly 50,000 proposals have been reviewed for grants ranging from \$50,000 to \$60 million and lasting from one to five years.

CONSUMERS

The CDMRP currently involves consumer advocates (individuals or family members affected by the disease) as well as

advocacy organizations such as the National Breast Cancer Coalition, American Cancer Society, Us TOO International, Ovarian Cancer National Alliance, the Children's Tumor Foundation, Autism Speaks and others.

The program is essentially a partnership among four key players: government, the military, the scientific community and the American public.

Consumers are important because they can reinforce the need for tangible results and provide a sense of urgency. They can be nominated by an advocacy organization through a simple two-page application. Prior to grant review, they are guided through the review process by a mentor, such as an experienced consumer reviewer.

Consumers also help define research areas on a yearly basis and attend multidisciplinary meetings held by the CDMRP, such as the Breast Cancer Research Program's Era of Hope meetings.

SYNERGISM AND VISION-SETTING

The Era of Hope meeting gathers experts worldwide to exchange ideas and explore new research paths. The idea is to create a synergistic environment.

"Every few years, in many of our programs, we invite all the investigators we funded to come back and report on what they've done with the research funds we gave them," said Kaime. "The forum includes not only researchers, but part of the general public to whom they have to defend their work."

Vanderbilt University researcher Todd Giorgio, Ph.D., who is funded by the CDMRP, has attended the meeting. "It is very motivating because cancer survivors are always invited," said Giorgio. "What better way to motivate your research activities than to meet and interact with individuals who have suffered the disease?"

Vision-setting also involves consumers. On a yearly basis, CDMRP staff, researchers and consumers convene to review research goals. "This is a find-a-cure program," said Kaime. "So every year when we do vision-setting we ask ourselves, 'Where are the greatest research needs to find a cure?'"

In a sense, developments over the previous year, along with new research priorities, guide the development of funding mechanisms. In other words, if significant progress in basic research has been made, new mechanisms are developed to fund studies in animal models and eventually clinical

Research Areas Currently Funded

- Amyotrophic lateral sclerosis
- Autism
- Breast cancer
- Chronic myelogenous leukemia
- Deployment-related medical research
- Gulf War illness
- Minority and underserved populations
- Neurofibromatosis
- Ovarian cancer
- Peer-reviewed medical research
- Prion diseases
- Prostate cancer
- Psychological health/traumatic brain injury
- Tuberous sclerosis complex

trials. If a significant gap exists in trained scientists in a particular area, training grants are developed. Mechanisms are therefore partially based on the research needs of the community studying a disease.

MANY WAYS

CDMRP grants are unique in the broad scope they cover. Various types of awards exist, which allows substantial flexibility to scientists and can support them in various ways.

One such award, called a Concept award, funds the exploration of untested, high-risk questions. Researchers need submit only a one-page proposal, and, unlike many other awards, they do not require any preliminary data. The awards range from \$75,000 to \$150,000 and can last up to 18 months.

"Concept awards allow us to open a novel investigation, such as, 'Does this new approach have any validity to it?'" said Giorgio. "This is the kind of critical support that is difficult to find in many other funding organizations."

With a Concept award, Giorgio developed preliminary data needed to secure funding from other organizations. His research focuses on manipulating the surface of nanoparticles to allow them to stick better, and more specifically, to a particular target such as cancer cells.

Once released into the body, these fluorescent nanoparticles could then bind to small precursor tumor, allowing early treatment. Toxic drugs could also be latched

RESCUE Sked
The complete rescue system

HAZ-MAT Sked

Why put your level A rescuers at risk by having them carry heavy patients on rigid litters? The **HAZ-MAT Sked** allows them to slide the patient safely on the ground. This allows moving large victims much easier using fewer rescuers. The result is more victims evacuated and fewer rescuer and patient injuries.

- Decontaminable and for use in Mass Casualty
- Fast, Safe, Easy and Efficient Partner Rescue
- Evacuate up to 50 victims or more for each one you carry out

1-800-770-SKED(7533)
www.skedco.com

Skedco Products are made in USA

onto these tiny particles and delivered to cancer cells.

The CDMRP funds various types of research, including the development of drugs, devices, clinical or public health interventions, biological resources and biological molecules. Funding falls into four broad categories:

- Innovative Research
- Clinical Research
- Training
- Resources

INNOVATIVE RESEARCH

These awards forge creative environments to stimulate the exploration of ideas that could ultimately lead to a scientific breakthrough or an innovative disease treatment, such as Herceptin.

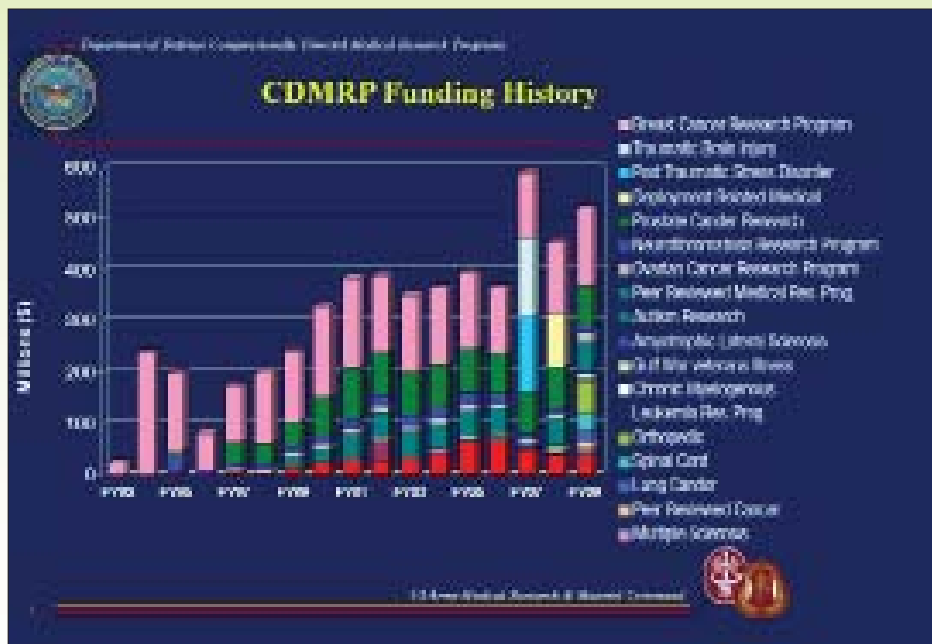
Innovator, Idea and Concept awards are some of the funding mechanisms that fall into this category. Like the Concept award, the Idea award does not require preliminary data and can provide up to \$450,000 in funding for up to three years.

Slamon, who has been funded for over a decade, is funded today through an Innovator award that allows for significant research leeway. "It's not a traditional grant," said Slamon. "They ask for a general idea of what you'll be working on and let you use the money as you see fit to make those objectives happen. You're given the flexibility to move the money from one category to another as the research leads you, which is what really needs to happen much more commonly."

Through the Innovator award, Slamon is further investigating HER2. "Herceptin has led great results for a large number of women, but about half the women who have the alteration don't respond. We also know that when people do respond, they can develop progressive disease even though they are on the drug." Slamon is using CDMRP funding to better understand these quandaries. He hopes that answering these questions could eventually lead to better therapeutic interventions.

CLINICAL RESEARCH

Clinical awards have been provided to conduct small pilot studies as well as international trials. The Clinical Trial award supports clinical research leading to a major impact in treatment, management or cure of a disease. It can last from three to five years



and range from \$335,000 to \$2.5 million.

Clinical awards are also available to support the transition from the lab to clinical research, and to help institutions collaborate on studying a disease. Nearly 150 clinical research awards have been granted thus far.

TRAINING AND RECRUITMENT

Moving forward in discovery can only be done through the dedication and commitment of researchers. Training and recruitment awards include support for career development, pre- and postdoctoral training, and clinical and physician scientist training. More than 2,200 training and recruitment awards have been made to date.

The New Investigator award, which falls into this category, supports independent principal investigators in the early stages of their careers through awards of up to \$225,000 for two to three years.

Medical or other doctoral graduates can obtain the necessary experience to develop an independent research career through Postdoctoral Fellowship awards, which can provide \$250,000 to \$300,000 for two to three years.

Support is also available for physicians. The Physician Research Training award helps train and prepare physicians to conduct research. Funding allows them to secure at least 40 percent of their time to research.

RESEARCH RESOURCES

Research resources such as the funding of multidisciplinary consortia, pilots, infra-

structure, technology development and coordinating centers are all supported through this funding mechanism. Awards range from \$150,000 to \$60 million and can last for one to five years.

AWARDS IN ACTION

The Psychological Health and Traumatic Brain Injury program and the Peer Reviewed Medical Research program described below are only two of more than a dozen research areas funded by the CDMRP.

PSYCHOLOGICAL HEALTH AND TRAUMATIC BRAIN INJURY

Veterans are sometimes exposed to life-and-death situations that can lead to post-traumatic stress disorder (PTSD). It is estimated that nearly 20 percent of military personnel returning from Iraq has suffered from PTSD.

Through funding from CDMRP, a multidisciplinary consortium of 85 investigators is trying to understand the prevention and treatment of PTSD. A training program is currently being developed to teach health providers how to deliver short-term, efficacious and evidence-based treatments to individuals with PTSD. Research is also being undertaken to better understand the relationship between PTSD and depression.

Exploding bombs and projectile impacts can cause traumatic brain injury (TBI), which has been called

by some the “signature injury of the Iraq War.” TBI can be extremely disabling and have a long-term negative impact on the individual’s quality of life. It affects in estimated 20 percent of wounded personnel.

A consortium of 10 clinical sites, coordinated by the University of California, San Diego, brings together more than 100 psychologists, psychiatrists, neurologists, trauma surgeons and rehabilitation specialists to better understand how to provide effective care to those suffering from PTSD and TBI.

Nearly \$300 million was allocated to study these conditions in 2007 alone. Some of the discoveries could be translated to be used in the thousands of civilians who arrive to the emergency rooms as a result of head trauma.

PEER-REVIEWED MEDICAL RESEARCH PROGRAM

This program requests proposals every year on a broad range of research

areas specified by Congress, including lupus, epilepsy and multiple sclerosis. In 2008 and 2009, a total of \$50 million was appropriated for the program.

Since 2001 the Peer Reviewed Medical Research program has supported the development of preventive vaccines and new drugs for malaria. The disease causes large casualties for personnel deployed to tropical areas. Discoveries in this area could also impact the nearly 500 million civilians with malaria worldwide.

On another front, investigators at the University of California, Los Angeles, are developing a vaccine for tularemia—an infectious disease that can be turned into a biological weapon and cause highly fatal pneumonia.

Given its potential for weaponization, the development of a vaccine for tularemia is essential. Results of research conducted in the area show that 100 percent of vaccinated mice have survived a lethal infection of the bacterium that causes tularemia.

MOVING FORWARD

Kaime foresees future growth for the CDMRP. The forthcoming research areas are difficult to ascertain, as they are determined by advocates and Congress on a yearly basis.

The CDMRP’s unique model of intensive consumer involvement will likely help propel future innovative research, which could impact thousands of individuals. It seems that the approach has paid off, at least judging by the development of Herceptin.

For more information on funding and applications, please visit <http://cdmrp.army.mil/funding>. Consumer involvement information can be found at <http://cdmrp.army.mil/cwg>. ★

For more information, contact *MMT* Editor Ted McKenna at tedm@kmiimagroup.com or search our online archives for related stories at www.MMT-kmi.com.

The only glucose meter that made it through basic.

Precision Xtra
Blood Glucose & Ketone Monitoring System

85% less blood than Comfort Curve®

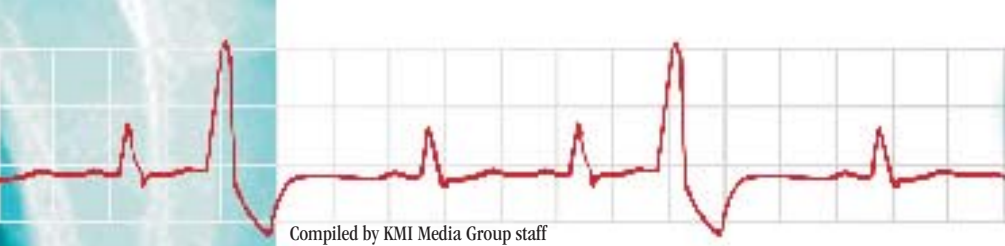
The only blood glucose and ketone monitoring system on the DoD Basic Core Formulary.
That means it's the only system available at all DoD pharmacies—CONUS and CONUS—so you and your family can always get the supplies you need.

- Simple 3-step testing—just insert strip and apply blood
- Simple 1-step application—strip design makes it easy to apply blood, whether you prefer to apply to the top or to the end of the strip
- Precision® SmartStrip™ technology provides automatic strip application— you toss it from test strip dispenser without ever having to insert arm under
- Also test blood ketones
- Allow alternative-site testing—using forearm, upper arm, back-of-hand*
- Ketone-specific chemistry—helps identify lows and high ketones**
- Fast results—just 5 seconds

Ask your provider for the Precision Xtra Blood Glucose & Ketone Monitoring System available at all DoD pharmacies. For more information, please call 1-877-588-8271 or visit us at www.abbottdiabetescare.com.

*When used with the Precision Xtra Blood Glucose & Ketone Monitoring System. **When used with the Precision Xtra Blood Glucose & Ketone Monitoring System. ©2009 Abbott Diabetes Care. All rights reserved.

Abbott Diabetes Care



Compiled by KMI Media Group staff

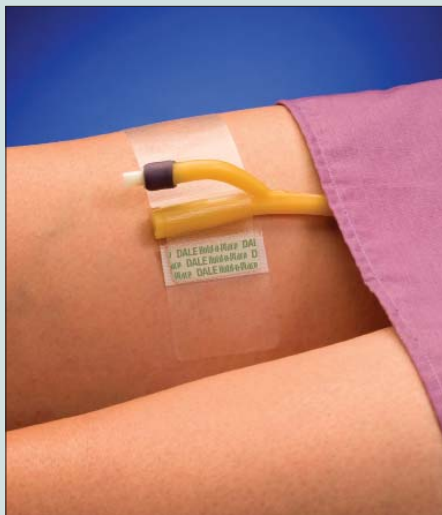
Catheter Holder

A brand new Foley catheter holder for short-term patient use, in addition to their leg band style holder for long-term catheterization, has been introduced by Dale Medical Products Inc. of Plainville, Mass.

The Dale Hold-n-Place Foley catheter holder is an adhesive patch that has a clear, skin-friendly base, and a locking tab that features a dual holding system of adhesive and hook-and-loop to secure the indwelling catheter. Stabilizing the catheter to prevent movement and dislodgment helps reduce the likelihood of meatal irritation, bladder spasms and urethral erosion. The re-sealable system allows the catheter to be repositioned multiple times.

Designed for short-term application, the catheter holder's adhesive latex-free patch is clear and breathable. The center locking tab can be secured at the "Y" port or on the drainage tube itself, and creates a low-profile that keeps the tube close to the patient. For long-term catheterization, the firm's leg band holder is soft, stretches without narrowing to avoid the tourniquet affect and meets WOCN guidelines.

Allison Frazer: a.frazer@dalemed.net



First Line Delivers AmbuBus Kits

First Line Technology recently delivered 40 AmbuBus bus stretcher conversion kits to the Georgia Department of Human Resources, completing a \$1 million statewide contract to enhance evacuation capabilities during natural or man-made disasters. The Georgia Department of Human Resources, in conjunction with local school districts, deployed these assets around the State of Georgia to convert school buses or other transit buses into mass-transport ambulances.

The AmbuBus allows Georgia to use vehicles of opportunity in the state to expediently and efficiently evacuate hospitals, medical facilities and nursing homes during a hurricane evacuation. "Georgia joins other states in putting together an effective plan with the AmbuBus kit to ensure that non-ambulatory citizens are able to evacuate without having to rely on ambulances," said Amit Kapoor, First Line's president. "With lessons learned from Hurricanes Katrina, Rita and most recently Ike and Gustav, states are realizing that there are just not enough ambulances available for an effective evacuation, and the need for a package like the AmbuBus kit that can convert any school or transit bus into a mass-casualty transport vehicle is critical in any emergency plan."

Amit Kapoor: akapoor@firstlinetech.com

Maritime Recovery/Evacuation

Netcessities of Logansport, Ind., has developed the Black Irish recovery lift bag, which is a complete underwater recovery lift system that enables secure underwater casualty evacuation. The system streamlines and aids the recovery and lift process more efficiently than standard procedures.

The Black Irish standard-sized unit opens to reveal a square 6-foot-by-6-foot recovery net in which the casualty is placed. Additional larger sizes are available and all are equipped with two integrated lift bags—starting at 25-pound lift capacity—on opposing sides. The net then cradles the casualty for a safe, controlled and efficient ascent. Unlike traditional

methods of recovery, the Black Irish gently recovers the casualty, lessening the risk of additional injuries.

Topside, the system is easy to manage using the four corner handles. The 400-pound load

capacity derives from the continuous single strap construction, double stitched seams, reinforced corner stitching and knot stitched polyester netting. The integrated lift bags are easy to change out for an as-needed lift capacity. "Our recovery system is very versatile and can be customized by size and lift capacity to meet the exact needs of our customer," said Bobbi J. Benish, president and founder. "We offer the Black Irish in several different sizes and configurations depending on the mission requirements."

Bobbi Benish: bobbibenish@mynecessity.com





Vaccine Temperature Monitoring

Vaccines need to be kept at certain temperature ranges to avoid damage and waste. For refrigerated vaccines, this temperature is between 36 to 46 degrees Fahrenheit or 2 to 8 degrees Celsius. For freezer vaccines, this range is 5 degrees F or -15 degrees C and lower. Not following these guidelines can lead to lost dollars due to vaccine waste and the liability of potential health risks in patients.

Simi Valley, Calif.-based SensoTech, a developer of embedded Web-based wireless temperature monitoring systems, now offers a vaccine monitoring module. “We are aware that these are very expensive vaccines they’re dealing with and we really want to support them in proper handling and storage. The key is to prevent these things from happening before the damage occurs,” said Mike Zarei, vice president of business development. “The best way to do that is through proper and continuous temperature monitoring—and that’s where we come in.”

Often, temperatures are logged but nothing is ever done about out-of-range-temperature incidents, according to Zarei. Sometimes employees do not even know that the temperature is out of range. With the continuous monitoring the SensoTech vaccine monitoring module provides, an audible alert is heard or an e-mail alert is received when the temperature is out of range, allowing it to be addressed immediately and minimizing costly vaccine damage.

Mike Zarei: vahid@sensotechnologies.com

Prism Identification Band

DQE Inc. has added increased functionality to the DQE Prism inflatable light. For years, the inflatable light has been providing 360 degrees of light for emergency scenes. With the addition of the new identification band, the light can now also serve as area signage.

The band fits snugly around the light to provide illuminated signage on two sides of the light. Each identification band is custom-made with the lettering and letter colors specified by the buyer. Common band lettering includes “command” and “triage,” lighting and identifying specific areas of an operation.



The DQE Prism Inflatable Light is an air-inflated cylinder that raises the light source 15 feet to provide complete scene illumination. The light is compact and lightweight for transport and setup by one person. It illuminates completely in less than three minutes, to light up to 12,000 square yards, or approximately two football fields. The light is also available as a mini tower, inflating 9 feet high for indoor or low overhang areas.

Contamination Control

A portable contamination control unit developed by Air Innovations has been designed to help hospitals, clinics, extended care and disaster centers quickly expand their ability to handle surge capacity for isolation, trauma and burn care as well as increase their preparedness for pandemic influenza.

“IsolationAir rapidly deploys to create negative or positive pressure, improve air quality around patients and staff, and provide for patient and staff comfort by controlling temperature and humidity in the room,” explained Air Innovations president and CEO Michael Wetzel, P.E. “Because the unit wheels into place on an as-needed basis, plugs into 110-volt power and requires no tools for installation, it easily converts any standard-sized room—from health care facility to

hotel to military base—into an isolation room for emergency services.”

The patented unit meets or exceeds specifications for isolation space established by the Centers for Disease Control and Prevention, the American Institute of Architects and the American Society of Heating, Refrigeration and Air Conditioning Engineers.

The unit uses known and accepted technologies for filtering and purifying the air, including highly efficient HEPA filters and ultraviolet germicidal light. When used to create negative room pressure, the unit



will help prevent the escape of infectious diseases and reduce cross-contamination risks to hospital personnel and other patients. When used to create positive room pressure, the unit will help prevent airborne particles from infiltrating the isolation room and infecting immunocompromised patients. In addition, IsolationAir will isolate the patient’s room from the building’s central system to reduce

cross-contamination risks as well as continually operate when plugged into a room’s emergency generator outlet.

Influencing and Directing Medical Support for NATO and Joint Warfighters

Rear Admiral Michael H. Mittelman
Medical Service Corps, U.S. Navy
Command Surgeon, U.S. Joint Forces
Command
Medical Advisor, Allied Command
Transformation
Director, Medical Service Corps



A native of Long Beach, N.Y., Rear Admiral Mittelman earned a Bachelor of Arts from Jacksonville University in 1975. He was awarded his Doctor of Optometry from the Pennsylvania College of Optometry in May 1980 and earned a Master of Public Health from the University of Alabama at Birmingham in 1990. He graduated from the Naval War College non-resident program in 1991.

Mittelman was commissioned in the Navy Medical Service Corps in 1980. His first clinical assignment was at Naval Hospital Cherry Point, Marine Corps Air Station Cherry Point, N.C., from July 1980 to September 1984, serving as a staff optometrist and later as head of the optometry department. From September 1984 to August 1987, Mittelman served as head, Optometry Department, U.S. Naval Hospital, Rota, Spain. Mittelman then transferred to the Naval Aerospace Medical Institute, Pensacola, Fla., where he served as head, Optometry Department, and became the first optometrist designated as an aerospace optometrist in 1989. In 1993, Mittelman assumed the duties of deputy director of Research at the Naval Aerospace Medical Research Laboratory, Pensacola, Fla. He then reported to Naval Hospital Great Lakes, Ill., in October 1995 where he held the position of head, Recruit Medicine Department, and also served as the commanding officer of Fleet Hospital 3. In July 1997, Mittelman assumed command of the Naval Ophthalmic Support and Training Activity, Yorktown, Va. While there, he facilitated the establishment of the Department of Defense Optical Fabrication Enterprise. In July 2000, Mittelman assumed command of U.S. Naval Hospital Okinawa, Japan. Following this assignment, Mittelman served as the executive assistant to the surgeon general of the Navy until August 2004, after which he was assigned as a special assistant to the surgeon general at Headquarters, U.S. Marine Corps, Washington, D.C. He then served as the deputy chief of staff, Human Resources, Bureau of Medicine and Surgery. Prior to reporting to his current assignment, Mittelman served as the director, Medical Resources, Plans and Policy Division (N931), Office of the Chief of Naval Operations.

Mittelman is a fellow of the American College of Healthcare Executives and a diplomate of the American Academy of Optometry. He also is an active member of the American Optometric Association and associate fellow of the Aerospace Medical Association. He is past president of the Armed Forces Optometric Society and a member of the National Academies of Practice.

Mittelman's awards and decorations include the Legion of Merit (five awards), Meritorious Service Medal (three awards), Navy Com-

mendation Medal (two awards), Navy Achievement Medal, Meritorious Unit Commendation (two awards), National Defense Service Medal, Operation Enduring Freedom Medal, Navy and Marine Corps Overseas Service Ribbon (five awards) and the Navy Expert Pistol Ribbon.

Q: How would you describe your missions in the Office of the Command Surgeon at U.S. Joint Forces Command [USJFCOM] as well as in the Medical Branch in Allied Command Transformation [ACT]? Additionally, what are your roles in medical transformation?

A: The uniqueness of my two roles as the command surgeon at USJFCOM and as the medical advisor at Allied Command Transformation provides me opportunities to influence and direct medical support for both our NATO and joint warfighters. In 2009, beside ongoing doctrinal development and review, our most pressing mission is to support our forces in Afghanistan and Iraq. We must ensure joint and coalition forces have the required medical support throughout the world. We accomplish this by working in several venues to include strategic planning, policy development, joint training and joint force providing.

We recently updated our Office of the Command Surgeon, USJFCOM, mission statement to include focus on striking a balance between meeting present and future joint operational medical requirements. To achieve that purpose, our office now is divided into five branches: Joint Concept Development and Experimentation, Joint Force Provider, Global Health, Joint Training and Administration Support.

Our Joint Concept Development and Experimentation branch focuses primarily on medical transformation. Joint force health protection transformation is one critical area where we focus our efforts. In 2004, the deputy secretary of defense tasked USJFCOM to improve war fighting through joint force health protection [JFHP] transformation. Working closely with more than 400 personnel from the Joint Staff, combatant commands, the Office of the Assistant Secretary of Defense for Health Affairs [OASD/HA], and other government agencies, we identified short- and long-term gaps the joint force and medical community need to address. In 2007, the Joint Requirements Oversight Council [JROC] approved the “Joint Force Health Protection Concept of Operations” [JFHP CONOPS]. This pivotal document identified our best estimate of what is required to support joint forces from 2015–2025. Publishing such a document is instrumental in leading medical transformation. This JFHP CONOPS incorporates the services’ transformation planning, is focused at the operational level and implements the JFHP strategy of three interrelated pillars: healthy and fit force; prevention and protection; and medical and rehabilitative care.

Because of the joint medical community’s innovation and diligence over the past several years, joint warfighters currently suffer the lowest died-of-wounds and disease, non-battle-related rates we have ever seen. Advances in medical technology have helped, and these likely will continue at an exponential pace. We must continue to leverage these to support joint forces during home base and expeditionary operations. Our findings from the JFHP CONOPS are posturing DoD to address gaps and further leverage these advances to best support the joint force. The overarching purpose of the JFHP CONOPS is to support analysis of capabilities and gaps through capabilities-based assessments in six functional areas: joint casualty management; joint medical logistics and infrastructure support; joint medical command and control; joint patient movement; joint health surveillance, intelligence and preventive medicine; and joint human performance enhancement. Although the JFHP CONOPS directs solution development, many identified gaps are already being used to prioritize resources and drive medical research and development initiatives today. An enterprisewide approach is under way to prioritize top gaps in these functional areas. The deliverable will enable the Military Health System [MHS] to look across the joint medical community and develop an integrated investment strategy for solution analysis.

Two examples of solution development initiatives currently under way include the epidemic outbreak surveillance [EOS] advance concept technology demonstration and the joint medical distance support and evacuation [JMDSE] joint capability technology demonstration [JCTD]. EOS will provide near real-time environmental surveillance and clinical diagnosis by integrating MHS information management and information technology [IT] systems. It will improve our environmental surveillance capabilities of biological threat agents and the clinical response to influenza-like pathogens. It contains pathogen agent detectors and peripheral data collection, distribution and analysis data systems that potentially can identify a sudden increase in flu cases in a specific area and then identify if the flu cases have characteristics of a specific strain such as Avian flu. EOS is transitioning from a concept into two programs of record [POR] this year.

In October, we started a \$19 million JCTD—JMDSE. JMDSE will employ advanced technologies to adapt current tele-maintenance technology for battlefield telemedicine. It will provide virtual triage and automated patient monitoring/care at a distance, aerial precision delivery capabilities from helicopters, fixed wing aircraft and

unmanned aerial systems [UAS] to bring small medical bundles or equipment forward to dispersed forces and develop CONOPS for future UAS casualty evacuation of sick and injured from denied or remote areas technical solutions. This demonstration has support from the services, U.S. Special Operations Command, U.S. Pacific Command and a number of government organizations.

While our efforts concentrate on supporting USJFCOM, Joint Staff and OASD/HA, our work at ACT is very much interrelated. The ACT medical staff is leading the medical transformation process in NATO. I work closely with our NATO colleagues and with my direct counterpart at allied command operations [ACO], the operational arm of NATO. Our ACT and ACO medical staffs work together on doctrine and training to ensure we continue to deliver quality medical care to the warfighter. The most pressing issue for ACT medical in 2009 is support of our warfighters in Afghanistan. In the long term, we must ensure medical capabilities developed by each nation enables support for all NATO missions. To accomplish this, we will continue to identify the best available practices in NATO and share them among the nations to ensure a uniformly high standard of medical care is provided to the force. Where there is an identified need for improvement, and no solutions currently exist, we must develop them through experimentation. Lastly, we are working to assist nations such as Albania and Croatia as they prepare to join NATO.

Q: Is there any end state and how would you measure the progress toward transformation to date?

A: Transformation never really has an end state. It is a dynamic and ongoing process that must continue into the future. The world, our operational environment and our adversaries are always changing and adapting. We must remain agile, flexible and be prepared to deal with the inevitable surprises that will come our way. While we are making tremendous strides in joint medical transformation we will continually re-assess and identify gaps and create solutions to meet future challenges. Dealing effectively with these challenges requires innovative and organizational solutions that allow standing joint task forces and other organizations to operate routinely across combatant command boundaries without disrupting the integrity of those organizations.

Any discussion about transformation and future challenges would not be complete without highlighting two recently published documents: the “Joint Operating Environment” [JOE] 2008 and the “Capstone Concept for Joint Operations” [CCJO]. JOE 2008, a USJFCOM publication, lays out the problem statement, describes future operational environments the joint force may encounter and sets demand signals for future challenges. The JOE is a companion to the CCJO. The CCJO, signed by the chairman of the joint chiefs, articulates his vision for how the future joint force will operate to address the challenges and meet the demands of future operating environments. Both have great implications for the joint medical community.

Progress in U.S. and NATO medical communities is often measured in number of lives saved and mitigation of the impact of injury and illness through disease prevention, public health and casualty care. These are of equal importance whether we are caring for U.S. troops, coalition partners, host nation colleagues, internally displaced persons and even our adversaries, when necessary. Additionally, coordination and collaboration are vital to our joint and coalition successes. We will continue to transform and improve processes and develop new methodologies to meet the present and future operational needs of joint and coalition forces.

Q: Since coming on board in mid-2008, what has been your vision and direction for the surgeon's office?

A: The easy—and correct—answer is that my vision supports that of my commander, General [James] Mattis, in his dual roles as NATO's supreme allied commander transformation and commander of USJFCOM. Both of my offices must be relevant, agile and able to respond quickly to the warfighter's medical requirements.

I believe in execution and not creating bureaucracy to solve problems. One thing I've learned over the years is that it's relatively easy to talk a problem to death, but the only way you'll succeed in solving a problem is to address it head on, be prepared to take some risk and go with the 80 percent solution. We are engaged in a fight with an agile enemy on a fluid battlefield that has increased medical requirements. Our job is to support the joint and coalition forces and look for things to support our forces' current and future needs.

I bring an operational background with several years working in the Pentagon on the OPNAV and Navy Medicine headquarters staff to this job, thus my focus is on the operator. My first priority after reporting on board was to become savvy on USJFCOM's role as the Joint Force Provider [JFP] and learn more about the overall global force management [GFM] process that falls under the Joint Staff—in addition to attempting to become familiar with all the acronyms used both by USJFCOM and ACT.

Our JFP team is the medical focal point for this USJFCOM mission. As the DoD joint force provider, USJFCOM recommends assignment of almost all conventional forces in the continental United States to provide trained and capable forces to commanders in the field. Building a joint force requires coordination with active forces, the Reserve and National Guard to ensure deployment of an integrated, task-organized team. During the past two years, our medical planners were instrumental in meeting combatant commanders' conventional medical support requirements. The direct efforts of our staff provided joint sourcing recommendations for a range of operations including Iraqi Freedom and Enduring Freedom.

This is a complex process because it involves tasking the services to provide personnel and materiel in support of the warfighter. To help facilitate communication and ensure our service and component command surgeons and their staff were knowledgeable on both the GFM and JFP processes, we hosted two expeditionary medical operations meetings. These improved attendee working knowledge of these pivotal joint operational processes, enhanced transparency, facilitated teamwork and garnered trust with the stakeholders.

As medical advisor to ACT, my staff and I work to support the commander's vision that "ACT will be NATO's leading agent for change; enabling, facilitating and advocating continuous improvement of military capabilities to enhance the military interoperability, relevance and effectiveness of the alliance." My own vision and directive is to expand and improve medical support to our forces by working closely with ACO in ongoing operations. I also am ensuring we maintain a clear view of NATO's future needs. The primary role of ACT is to look forward to ensure adequate medical support for future operations.

Finally, I am focused on improving linkages between the ACT and USJFCOM medical staffs to better communicate and share ideas, concerns and projects in order to best align our work collectively to support the joint and coalition forces.

Q: What are some of the accomplishments that can be attributed to the Office of the Command Surgeon, USJFCOM and to the Medical Branch, ACT?

A: While we are the catalyst, or the office of primary responsibility, for many initiatives, the strength of what we are able to accomplish lies in leveraging and enabling capabilities inherent to DoD, USJFCOM, our multinational partners, interagency and intergovernmental organizations as well as industry and academia. We partner with line and military medicine colleagues in all four services, as well as the Coast Guard, combatant commands, Joint Staff, Office of the Assistant Secretary of Defense for Health Affairs and NATO. It is the strength of these interactions and partnerships that ensure success.

USJFCOM's Global Health Branch is composed of two Air Force international health specialists and an Army preventive medicine officer. It has been actively engaged with several organizations in furthering capabilities to support the medical component of the DoD mission of security, stability, transition and reconstruction [SSTRO] operations. In November 2005, DoD published DODD 3000.05, "Military Support for Stability, Security, Transition and Reconstruction [SSTR] Operations." This document states, "Stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct and support. They shall be given priority comparable to combat operations and be explicitly addressed and integrated across all DoD activities including doctrine, organizations, training, education, exercises, materiel, leadership, personnel, and facilities and planning." It went on to direct that the under secretary of defense for Personnel and Readiness shall "ensure DoD medical personnel and capabilities are prepared to meet military and civilian health requirements in stability operations." To this end, our Global Health staff is engaged with the DoD Civil Military Medicine Working Group to address these key issues and recommend solutions.

After working with more than 100 personnel worldwide, our Global Health Branch finalized a comprehensive paper on stability operations to assist line and medical communities. The paper, titled, "Emerging Challenges in Medical Stability Operations White Paper," was signed by the USJFCOM chief of staff and published in 2007. This paper since has been used as the basis for training medical stability operations, including a module the Global Health team spearheaded and built in conjunction with the joint knowledge development and distribution capability [JKDDC]. JKDDC provides premier relevant, timely and globally accessible joint training to prepare individuals to support integrated operations.

Our Global Health team also is making progress in the whole-of-government approach with a specific focus on public health systems and interactions with Department of State and international health entities. They are engaged with partners from the OASD/HA, the Department of State, U.S. Agency for International Development and other nongovernmental agencies to determine the best whole-of-government approach and develop a way ahead. Preliminary concepts include taking care of the joint force, delivering emergent humanitarian assistance, and providing support to host nations as they build their own military and civilian health capacity.

Our goal is to take these concepts and capabilities the United States developed and employed over time, in an ad hoc fashion, and institutionalize them to provide better support to the joint force. Joint doctrine provides the main mechanism for institutionalizing these concepts. To date, we have published several doctrinal changes in joint publications that specifically address the joint medical community's

role in stability and civil-military operations. Last, the Global Health Branch provides support to the combatant commands. Our branch chief was a key adviser to the command surgeon, Africa Command, as they developed their concept of operations.

Our ACT Medical Branch also has some significant accomplishments regarding training, doctrine and information management/information technology. Specifically, we championed ratification of three new pieces of doctrine called Allied Joint Medical Publications: medical planning, aeromedical evacuation and medical intelligence. Also, our staff delivered in-built training for the casualty rate estimation tool to ACO.

We also shaped the Hungarian Ministry of Defense proposal for a Medical Center of Excellence that meets NATO's requirements. In the area of training, we delivered five medical courses for the NATO School in Oberammergau, Germany, and we promulgated a joint areas functional training guide. Additionally, there was experimentation to develop the medical information and coordination system [MEDICS]. The development of this capability is focused on 2012 for the delivery of a disease surveillance system for NATO as well as reporting modules of the International Security Assistance Force.

Q: What are some of the biggest challenges facing joint medical care, especially in the combat environment?

A: Expeditious and effective medevac will remain a key focus—getting our wounded warriors to treatment facilities as quickly as possible is paramount. We've done a great deal of training first responders to control bleeding and breathing on the battlefield. If a first responder can control bleeding and breathing within the first "platinum 10 minutes" following injury, current data show survival increases dramatically. We need to reinforce this training. We also will need to develop new capabilities and change the capacities of existing ones.

In the areas of joint training, we are excited to be a part of the USJFCOM urgent requirement JCTD, future immersive training environment [FITE]. This will provide military trainers and trainees a high-fidelity, immersive training simulation environment that creates and reinforces complex tactical and human dimension decision-making tools. We see many opportunities for medical training in FITE from modeling and simulation, information management/IT and beyond—initial care given to wounded warriors during the "platinum 10 minutes" in FITE scenarios may be a critical link to improving their survival.

Changing demographics and national shortages of medical professionals will force us to select, educate, train, equip and manage our people differently. This can have a significant impact on our joint medical force, especially if we are unable to recruit key combat-related specialties.

An additional challenge we face today is our ability to assist embedded training teams [ETTs]. It has been reported that medical personnel working on these teams would benefit from additional training to aid in the work of health service support. We are working to identify requirements for these teams and develop courses of action to ensure team members are prepared to go when called on.

In ACT, we are challenged to enhance the trust between partner nations to promote better multinational medical care, execute distributed and urban operations and focus on the future while continuing to support ongoing operations.

PELICAN

RIVALRY BECOMES SYNERGY



Pelican Protector Cases



Hardigg Specialty Applications



Storm Carry Cases



Hardigg Single Lid Cases



Hardigg Rack Mount Cases



Pelican Advanced Lighting Tools

Learn more at PELICAN.COM/SOT

DECEMBER 23, 2008
PELICAN PRODUCTS ACQUIRES HARDIGG INDUSTRIES



PELICAN
15216 Emery Avenue
Tombaca, CA 92676
☎(949) 478-6412
☎(949) 828-8211



SYNERGY



HARDIGG
147 North Main Street
South Duxbury, MA 01976
☎(978) 542-7344
☎(978) 556-4281
www.hardigg.com

Q: I know that your command has a key role in collecting and understanding lessons learned. Can you tell me a little more about that capability and how it is used to impact medical care in the field?

A: USJFCOM's Joint Center for Operational Analysis [JCOA] collects, processes, analyzes and distributes medical lessons, issues and observations from military operations, exercises and significant events. JCOA produces compelling recommendations for change derived from direct observations and sound analysis of current joint operations. For the Military Health System, this helps define and drive relevant joint medical training and concept development to support today's warfighter issues and challenges. During stages of the JFHP transformation initiative, service and joint lessons were examined and cross-referenced to validate gaps and ensure relevance of prioritized gaps across the MHS. This active effort captured valuable information that is assisting in defining and improving future medical requirements for joint force commanders.

JCOA medical lessons learned also have been used to enhance USJFCOM's Joint Warfighting Center [JWC] exercises, medical observer/trainer exercise support, modeling and simulation, experimentation and prototype development, doctrinal development, and real-world operational training. During the USJFCOM Joint Task Force Senior Medical Leader Seminar, senior leaders got updated on medical lessons learned. JCOA published valuable medically related reports, including lessons learned from Operation Iraqi Freedom, tsunami relief, Guatemala mudslides, Katrina medical evacuation and the Pakistan earthquake.

At ACT, we review medical lessons learned from all NATO nations using data collected by the Joint Analysis Lessons Learned Centre [JALLC]. The JALLC is NATO's lead agency for analysis of operations, exercises, training and experiments, and for the collection and communication of lessons learned. JALLC currently works with NATO operations in Kosovo, Iraq and Afghanistan and on maritime security operations in the Mediterranean.

JALLC's analysis process embraces all aspects of an operational issue, from doctrine and training through to operational processes, logistical and medical support, command and control, and communication processes. After a thorough review and analysis of medical lessons learned, the findings are communicated to forces in current operations for real-time use and employment. Armed with this information, medical personnel can support NATO headquarters and commands, and also enhance NATO's transformation.

Q: In hand with that is your role as the joint training facilitator. Do you actually engage in actual training of caregivers, identify areas where training needs enhancement or a combination of both?

A: The USJFCOM JWC coordinates the military's overall joint training efforts. Joint training focused on joint doctrine and joint tactics, techniques and procedures provides a solid basis for successful engagements in real-world operations. Our command provides highly realistic training in a joint context, and we revise the content as necessary by infusing lessons learned and best practices. Additionally, we refine the execution of the training through development of advanced technologies in conjunction with joint operational exercises. We are more than a facilitator. We are DoD's joint trainer.

The command's joint training focus primarily is targeted at the Joint Task Force [JTF] headquarters level. Our office is engaged in a variety of command training venues and the bulk of training is focused

on enabling senior medical department officers to be successful in joint operational roles. While some of our "students" are caregivers, we train them to function in joint operational leadership roles versus delivering hands-on patient care. Only a few organizations train medical personnel for the joint operational environment. We see our work in this arena as critical to the MHS and the joint force.

Our Joint Training Branch focuses on four key areas: joint individual training; joint collective training; joint enabling capabilities; and support to the Medical Education and Training Campus in San Antonio. Accomplishments in the joint individual training arena include the development of a JKDDC course on the role of the JTF surgeon. Additionally, the Joint Training Branch is the execution arm for the command's annual JTF senior medical leader seminar. The seminar provides senior medical department officers with knowledge to lead as a JTF surgeon or work in the joint operational arena in a leadership position. We bring in key speakers to address issues in expeditionary medicine and operating in the joint environment. To date, we have trained approximately 600 medical leaders in these seminars since we started. This year's four-day seminar will be conducted in Suffolk, Va., from July 28–31, 2009.

Regarding joint collective training, our staff provides medical support to key USJFCOM hosted or supported exercises by the JWC. These include: Unified Endeavor, a mission rehearsal exercise [MRX] that directly supports U.S. Central Command; combatant command priority exercises; and NATO exercises. We assist in development of training scenarios by providing timely and relevant information from lessons learned and best practices. Additionally, we strive to ensure the training audience is challenged during the exercise by replicating current conditions in an area of operations and building those conditions into the exercise scenario. However, there are many more exercises than the active duty staff can support. So, we use the expertise resident in our Army, Navy and Air Force medical department reserve officers. It is a win-win for us, the line and the reservists. The exercises are periodic and predictable, so our reserve team can project in advance what exercises they can support based on their skill set and schedule.

Additionally, we support the Joint Enabling Capabilities Command [JECC] under the JWC. The JECC has tailorable capability modules to meet specific joint operational requirements and includes deployable modules with joint functional area expertise. The JECC unites USJFCOM organizations to deliver tailored, specialized support to meet emerging requirements of joint force commanders worldwide. Our medical planners supported Hurricane Katrina operations, Combined Disaster Assistance Center-Pakistan following the earthquake, JTF Lebanon and, most recently, Combined JTF Horn of Africa.

In addition to supporting joint training events hosted by USJFCOM, our staff also teaches at ongoing joint medical education and training venues. These include the Joint Staff-sponsored joint medical planners course in Bethesda, Md., and the Joint Operations Medical Managers Course sponsored by the Defense Medical Readiness Training Institute at Fort Sam Houston in San Antonio.

Finally, I am one of six voting members on the Joint Medical Education and Training/Medical Education and Training Campus [METC] Flag Officer Steering Committee. The METC is a Base Realignment and Closure action that co-locates all [except aerospace medicine] medical basic and specialty enlisted training at Fort Sam Houston, with the potential of transitioning to a joint training effort. This BRAC initiative, in conjunction with Quadrennial Defense Review initiatives, provides great opportunities to foster joint medical education and training for our MHS personnel. As my staff constantly reminds me,

“Who will train medical personnel on joint ‘medical’ doctrine and other key joint concepts that enable joint interoperability and joint deployability if we, as a joint medical community, don’t do it ourselves?” In the future, I look forward to ensuring METC is a platform for joint medical education and training to enhance joint interoperability and deployability for the joint medical force.

Q: It has been noted that you were the first active duty optometrist to reach flag rank in any branch of the military. Does an optometrist bring a different perspective to the command and has there been any particular reason why it never occurred in the past?

A: As an optometrist, I help everyone see everything much more clearly! Seriously, I don’t think my being an optometrist brings any different perspective to this job than if I were a general surgeon or family physician. However, I do think my optometric training, augmented with my background in public health, provides me with the analytical and decision-making skills necessary to address problems from a patient-centric perspective. Placing our patients first does help drive us to the right answers. As a Navy Medical Department officer and a Navy optometrist, I developed a joint perspective early in my career by working side by side on any number of missions with my U.S. Marine Corps partners and health care providers from the other services. The Armed Forces Optometric Society, an organization comprising all federal service optometrists, provided

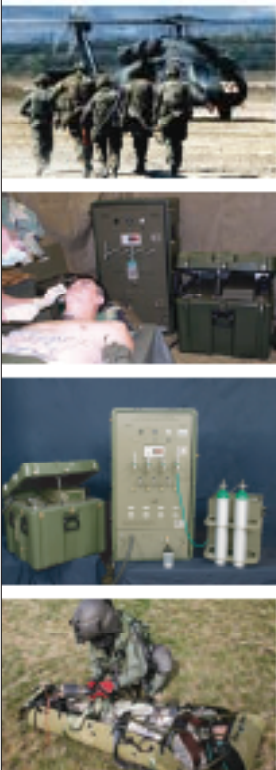
me with the opportunity to work with my joint and interagency colleagues throughout my entire career. As a member of that organization, jointness was a very natural state.

What really has had the greatest impact on me has been the time I’ve spent caring for our warfighters and their families, spending time in theater to see, first hand, what our young men and women accomplish every day, and fighting the budget and programming fights in D.C. I have been extremely blessed to have had wonderful leaders, mentors and role models who gave me opportunities others had not previously enjoyed. This, coupled with a great family support system that allowed me to do some pretty neat things, played the biggest role in getting me to where I am today. I can’t tell you how lucky, honored and privileged I feel to be able to represent my optometric and Medical Service Corps colleagues in such an important and dynamic environment.

Q: Final thoughts?

A: I greatly appreciate the opportunity to discuss the work USJF-COM and ACT medical teams are doing to support joint and coalition forces. The work we do at these two commands will help to ensure we maintain the medical readiness of our nation and those of our allies. It is an honor and privilege to lead such a talented and energetic group of professionals who are all working toward the same goal—winning today’s fight and keeping America and our NATO allies strong to ensure we prevail in the future. ★

POGS – Portable Oxygen Generating System.



Pure Convenience. Oxygen on demand – anywhere, any time

Battle Tested. Always Ready.

Our POGS systems are designed to meet the urgent need for medical oxygen in harsh, remote locations world-wide.

On Site POGS saves lives by producing medical grade oxygen in situations when the infrastructure is compromised or non-existent.

Rapidly deployable for humanitarian, disaster, emergency or military missions, POGS are the perfect, cost effective, inherently safe and simple medical oxygen solution for mobile or emergency medical shelters and hospitals.

POGS are used daily by:

- US Military
- FEMA
- Homeland Security
- Foreign Militaries
- First Responders
- Emergency Disaster Relief Teams
- Hospital and Clinics

- FDA APPROVED
- CONVENIENT
- EASY TO USE
- SAFE
- BUGGED
- RELIABLE
- PORTABLE
- FLEXIBLE
- MADE IN THE USA

ON SITE
Gas Systems Inc.

Manufacturers of Oxygen and Nitrogen Generators

35 Rodney Rd. | Rodney Industrial Park
Burlington, CT 06111
888-888-1507
email: info@on-site-gps.com
www.on-site-gps.com



Directorate of Medical Materiel

**THIS DIRECTORATE OF THE
DEFENSE LOGISTICS AGENCY
IS THE EXECUTIVE AGENT FOR
MEDICAL MATERIEL FOR DoD.**

By COLONEL MARSHA A. LANGLOIS

As the Department of Defense Executive Agent for Medical Materiel, the DLA Medical Directorate provides \$4.2 billion worth of medical materiel and services each year to DoD and its other federally funded customers. The directorate's armed service customers range from small medical field units to entire hospitals at fixed installations or afloat. One of the directorate's more rewarding missions is to support the two 1,000-bed hospital ships, USNS *Comfort* and USNS *Mercy*, that the United States uses to support humanitarian missions or respond to natural disasters and other crises throughout the world.

While the directorate provides end-to-end supply chain and contract management and exists to support DoD in times of war or crisis, it uses its peacetime sales to maintain the infrastructure, expertise and trading relationships needed to meet the demands of war or other contingencies. In addition to active duty military members, retirees and their eligible dependents, the directorate also supports various non-DoD customers such as Health and Human Services, Homeland Security and the Indian Health Service.

By its very nature, the medical materiel supply business does not conform to the traditional logistics model of buy, stockpile, maintain and distribute when needed. As medical science improves, the materiel required by the practitioners of that science is constantly changing. In addition, the materiel required to apply modern medical protocols is extremely clinician dependent. The result of these and similar factors such as limited shelf life, temperature sensitivity and

pedigree-tracking, is a demand stream for a constantly changing array of relatively fragile items ranging from a small bottle of pills to huge state-of-the-art imaging systems.

For almost two decades the Medical Directorate has heavily leveraged the commercial medical distribution infrastructure of the United States to execute its worldwide support mission for medical materiel support. This strategy has significantly increased customer service in terms of lower handling cost and faster logistics response time while reducing the DoD logistics footprint required in providing that service. For consumables, the directorate contracts with medical prime vendors located throughout the country to obtain and deliver these less durable products, primarily pharmaceuticals and medical/surgical items, to its customers. Under this program, the customer orders directly from the prime vendor and receives the vast majority of its materiel the next morning.

Approximately 98 percent of the directorate's business is conducted electronically, leveraging the commercial business-to-business model for added speed and efficiency. To control the price of the materiel, the directorate or its Veterans Affairs partner establishes an agreement or contract with the manufacturer, thereby establishing the price the government will pay for each consumable. Once the prime vendor delivers the ordered materiel, the directorate pays it the price fixed with the manufacturer of the item plus the prime vendor's contractual distribution fee. In the case of pharmaceuticals, this distribution fee is negative, returning approximately \$12 mil-

lion a month to the directorate's customers. Approximately 85 percent, or \$3.6 billion, of the directorate's business is conducted through its pharmaceutical and medical/surgical prime vendor programs.

To fill voids in its consumables Prime Vendor Program, the directorate relies on its Web-based Electronic Catalog (ECAT). ECAT is used to reach niche medical markets—such as medical reagents, optical lenses and frames, and dental items—not normally handled by a nationwide prime vendor. The directorate contracts with these niche vendors and establishes discounts off the vendor's product and price catalog of materiel. These catalogs are then added to the ECAT database and available to the directorate's customers online. Using ECAT, the customer can browse the various catalogs, place items in its "shopping cart" and then purchase them with the click of a mouse. The orders are electronically transmitted to the vendor who delivers the materiel to the customer and bills the directorate. Like any state-of-the-art Web-based ordering system, ECAT combines the convenience of easy access with the efficiency of online shopping and periodic reordering to meet the varying needs of a wide array of customers worldwide. ECAT supports a very important 5 percent, or approximately \$188 million, of the directorate's annual sales.

Approximately 8 percent, or \$333 million, of the directorate's annual sales is for capital medical equipment. Much of this equipment is tailored by the distributor or manufacturer to meet the specific needs of a specific customer. Large, complex, expensive items such

as entire computed radiography systems or computed tomography (CT) scanners and the service required to maintain them are typical of the items and services that fall into this category. To meet these requirements, the directorate contracts with a myriad of medical manufacturers and distributors who want to do business with the government to establish flexible quantity, configuration and delivery terms at negotiated prices. The directorate has a staff of biomedical engineers who assist customers in selecting and optimizing the equipment needed to meet the customer's specific needs and then communicating those requirements to a vendor or vendors best suited to deliver and maintain the equipment.

The directorate supports the remaining 4 percent, or \$146 million, of business using the traditional DoD depot system. The directorate relies on this traditional business model for two primary reasons. The first reason is that the item is so military unique that it is not available in the commercial sector, for example camouflaged bandages or an Army aidman's bag. The second reason is that the directorate can do a more efficient job in meeting the unique distribution, delivery and handling needs of its customers. For example, with annual flu vaccines, the directorate consolidates its customers' requirements, then orders, stores and choreographs the delivery of the delicate vaccines over time to meet the specific needs, handling and storage capabilities of each customer.

The directorate also manages a significant portion of the DoD Assemblies and Kitting program. Under this program, the directorate orders vast quantities of medical items and then contracts with the Defense Logistics Agency's Defense Distribution Center (DDC) to configure the items into large assemblies, such as an Army field hospital, or smaller kits, such as the Army Lifesaver Kit, for delivery to deployed and deployable units.

The Medical Directorate's business is demand-driven. Vendors with new products must demonstrate them to the clinicians supported by the directorate and the clinicians subsequently communicate a demand for the item in the form of orders or demand projections. Once the demand is communicated, the directorate or, in the case of pharmaceuticals, its VA partner, contacts the manufacturer or distributor and negotiates an agreement or contract that establishes a fair and reasonable price for the item. Once the price and other conditions are agreed upon, the product is added to one of the directorate's ordering

COLONEL MARSHA A. LANGLOIS, M.S., U.S. Army



Colonel Marsha A. Langlois, Medical Service Corps, U.S. Army, is the director, Medical Customer Operations Directorate, Defense Supply Center Philadelphia, Defense Logistics Agency.

Langlois is a graduate of Georgia Southern University with a Bachelor of Arts in history and a minor in English, and a Master of Science in materiel acquisition management from Florida Institute of Technology. She was commissioned a second lieutenant, Medical Service Corps, through ROTC in 1983 and is a graduate of the Army Medical Department (AMEDD) Basic and Advanced Courses, USAMMA Internship Program, Procurement Internship Program, Logistics Executive Development Course/Florida Institute of Technology, and Command and General Staff College.

Langlois' past assignments include: assistant S-4, 21st Evacuation Hospital, Fort Hood, Texas; chief, Supply and Services, Medical Element, Joint Task Force-Bravo, Soto Cano Air Base, Honduras; adjutant, 1st Medical Group, Fort Hood, Texas; S-4; Battalion S-4, 142nd Medical Battalion, Fort Clayton, Republic of Panama; commander, Medical Company, 1st

U.S. Army Support Battalion, 18th Airborne Corps, Sinai, Egypt; chief, Stock Control Division, 6th MEDSOM Battalion, Camp Carroll, Korea; procurement officer, U.S. Army Medical Research Acquisition Activity (USAMRAA), Fort Detrick, Md.; chief, Logistics Operations Division, Deputy Chief of Staff, Logistics, 18th Medical Command, Yongsan, Korea; chief, Materiel Branch, Logistics Division, Womack Army Medical Center, Fort Bragg, N.C.; deputy commander for Operations, U.S. Army Medical Materiel Center, Europe, Pirmasens, Germany; commander, U.S. Army Medical Materiel Center, Southwest Asia (Provisional), Qatar; and chief, Logistics Management Branch, AMEDD Center and School, Fort Sam Houston, Texas.

Awards and decorations include: Meritorious Service Medal with four Oak Leaf Clusters, Joint Service Commendation Medal, Army Achievement Medal with three Oak Leaf Clusters, Army Achievement Medal with one Oak Leaf Cluster, Joint Meritorious Unit Award, Army Superior Unit Award, Multinational Forces and Observers Medal, and the Expert Field Medical Badge.

price and product catalogs and the programs they support, depending on the nature of the product and its anticipated demand pattern.

To meet its uniquely DoD readiness needs, the directorate strives to purchase access to inventory as opposed to buying and storing the inventory itself. The directorate has a number of strategic alliances and readiness programs that, like its peace-time support programs, leverage the commercial sector. Under these programs, the directorate contracts with manufacturers to maintain a fixed amount of stock and the capacity to deliver it within a specified time frame. Under certain circumstances, the directorate buys the capacity of manufacturers to maintain or manufacture, assemble and deliver items again in a specified time frame to meet DoD surge requirements. These arrangements empower the directorate to meet surge requirements of DoD with fresh products without the traditional costs of constantly purchasing, storing, maintaining, disposing and re-purchasing these items. To speed delivery of contingency-related materiel to

the U.S. warfighter, the directorate has established "air bridges" on both the East and West coasts of the country. These air bridges combine commercial prime vendor distributors with overnight commercial air carriers to provide reliable, efficient and uncompromising support throughout the world.

Since the first Iraq war in early 1990s, the DSCP Medical Directorate has optimized its diverse array of support programs into a robust network that has ably supported DoD every day and in every crisis. Its combination of efficiency and reliability has empowered DoD and other caregivers to treat the sick and wounded and save lives under every condition imaginable. In the process it has saved the American taxpayer millions of dollars and pioneered a logistical business model that promises even better performance and expanded application in years to come. ★

For more information, contact *MMT* Editor Ted McKenna at tedm@kmimediagroup.com or search our online archives for related stories at www.MMT-kmi.com.

Staying Ahead of the Threat

CHEMICAL BIOLOGICAL DISTRIBUTED EARLY WARNING STRATEGY (CBDEWS)

**By JOAN MICHEL
MMT CORRESPONDENT**

The military put a program in place to deliver warfighters with new chemical and biological standoff detection capability within a couple of short years, thanks to off-the-shelf technology and a new acquisition approach piloted by the Joint Program Executive Office for Chemical and Biological Defense.

The Chemical Biological Distributed Early Warning Strategy (CBDEWS), a new system-of-systems detection strategy for fixed sites, directly addresses two of the warfighter's highest priorities—standoff detection and integrated early warning. The CBDEWS supports the National Military Strategy to Combat Weapons of Mass Destruction (WMD) by addressing the Joint Integrating Concept for Combating WMD and the Military Strategic Objective, "Defend, respond and recover from WMD use."

The CBDEWS' acquisition strategy represents a departure from more traditional acquisition practices. Commercially available technology will be evaluated before the requirements for follow-on programs of record are written. The resulting requirements then will be based on real-world technology advancements that industry can achieve in a specific period of time. Secondly, instead of one joint project manager (JPM), four colonel-level project managers, who collectively are responsible for dozens of programs of record, will be collaborating so that CBDEWS is maximally integrated.

Colonel Kyle Burke, who serves as the joint program manager for Nuclear Biological Chemical (NBC) Contamination Avoidance, spearheads the CBDEWS. Burke intends to have at least an initial solution in the hands of warfighters by fiscal year 2011.

"CBDEWS is a truly integrated effort across four joint project management shops—Contamination Avoidance, Biological Defense, Guardian and Information Systems. As a system-of-systems program, it leverages the significant coordination between the JPMS involved," said Burke. "The requirements writing process is different. We will have representatives from the entire spectrum of chemical and biological defense work together to come up

with an integrated approach to the program and to the requirements.” This will provide a dual-purpose capability that will support the warfighter both abroad and during homeland defense and homeland security missions at installations scattered throughout the United States. Future increments of CBDEWS will not only enhance initially fielded capabilities, but will be adapted to provide capabilities across the range of military operations.

“The intent is to deliver the right mix of capability to the warfighter quickly,” Burke said. “We are looking for a family of solutions for the short term, and to mature the concepts and technology over the long term.”

With CBDEWS, the military plans to provide better and earlier warning of chemical and biological events using a tiered, multi-sensor detection system. This will enhance detection, reduce false alarms and increase range using multiple event and sensor inputs to augment today’s fielded capability.

The system will also add the capability to track vapor and aerosol clouds in real time. The intent is that in the short term, CBDEWS will result in a distributed sensor system that provides an accurate detection based on data fused from each of its component sensors.

The CBDEWS is a system-of-systems strategy that will eventually lead to two programs of record—Next Generation Chemical Standoff Detector (NGCSD) and Chemical-Biological Active Standoff System (C-BASS). The NGCSD program will launch first, in late FY10, and will be built upon the analyses and requirements that come from tests con-

ducted under CBDEWS. C-BASS is planned to start in FY12.

The CBDEWS program’s first goal is to integrate existing chemical and biological point and standoff detection technologies with intelligence, surveillance and reconnaissance technologies into a single system. The initial system will be capable of detecting any chemical or biological hazard at a fixed site, such as a military installation or base of operation.

Data generated by this system of technologies will be brought together and analyzed through an information fusion program, which will then send its synthesized data to an existing battlefield situational awareness tool already in use, such as Joint Warning and Reporting Network (JWARN) that is integrated with the “common operating picture” contained in command and control systems.

“The threat is changing, and we need to go after that threat with different instruments,” said Burke. In addition to traditional chemical agents and biological materiel threats, Burke wants the future increments of this detection system to sense a wide variety of toxic industrial materials and emerging biological threat agents, as well as nontraditional chemical agents.

There are many detection technology solutions in use by the military and under development in industry, but no one solution works well in all possible threat scenarios. For this reason, CBDEWS intends to field a capability that can address the entire chemical and biological threat spectrum by fusing multiple technologies based on infrared, optics,

acoustics, lasers, chemistry and more that will interoperate as a system of systems.

From the JPEO, the focus of the Next Generation Standoff Chemical Detection (NGSCD) development will be integrating point and standoff chemical sensors with a fusion network that allows those sensors to be cued or tipped by other fielded sensors such as radar or acoustic. By cueing a standoff sensor on where to look or where to stare, the probability of detection and identification increases substantially along with an increase in standoff range. This concept was proven in the field demonstrations conducted in 2008.

The first technology is chemical standoff detection. Within that area, there are passive and active sensors. Passive infrared detection technology systems work by using infrared light to excite molecules and then compare their excitation pattern against a library of known chemical signatures. When detection is made, the technology alerts the warfighter with audible and visual alarms.

The Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD), a passive infrared detection system, detects nerve and blister agents by identifying their specific infrared signatures. Absorption data is collected and compared to its background spectra, and a detection is made. This sensor is currently mounted on the Stryker NBC Reconnaissance Vehicle and is capable of on-the-move, real-time detection. Signal processing software and hardware discriminate between chemical warfare agents and non-hazardous materials.

Always on the Move

Combat Proven Pulse Oximetry for the Military

www.mmt-kmi.com
 800.352.0074
 +1 762.533.3969

4410 E. 11th Street, Suite 100
 Moline, IL 61201 (USA) © 2009 MMT-KMI

MMT

©2009 MMT-KMI. All rights reserved. MMT-KMI is a registered trademark of MMT-KMI. All other trademarks are the property of their respective owners.

Light detecting and ranging (LiDAR) technology is an active sensor that is especially good at mapping a chemical aerosol cloud and classifying whether it is chemical, biological or just part of the natural environment. It is not a good technology for tracking vapor clouds; however, it is effective at measuring a plume's distance, speed and chemical composition. With LiDAR, a laser shoots a pulse of light toward a hazard. A receiver collects the return signal reflected from the target. The light that is scattered back is analyzed to determine its properties. The optical properties of the target, strength of the return and elapsed time can provide a great deal of information about the hazard.

Point detection systems require the chemical or biological agent to travel over the sensor to make a detection. One technology used is ion mobility spectrometry (IMS), which offers the ability to detect trace amounts of toxic materials. The technology is what the M22 Automatic Chemical Agent Alarm (ACADA) and the M4 Joint Chemical Agent Detector use to detect and identify blister and nerve agents. Both the M22 and new M4 are man-portable, operate independently after system startup, provide an audible and visual alarm and provide a communication interface to support battlefield automation systems.

As each detection technology does its job, information gathered is pulled together or fused into a single data stream that is analyzed and sent to the battlefield commander. For instance, information from a detector using LiDAR technology that shows that a vapor and aerosol cloud is moving southeast can be compared to an infrared detector that shows a vapor signature to be similar to nerve agent. A point detector mounted on a UAV could then confirm the detection and send a high-fidelity analysis to the field commander, who can respond to the threat.

"I am really excited about this program," said Dr. David Cullin, senior vice president for technology transition at ICx Technologies. "This is a very good direction that the government is going because an integrated system, as opposed to a single technology, is the answer."

ICx Technologies is currently the prime contractor for the Joint NBC Reconnaissance System Increment II (JNBCRS 2) program, which is managed by the JPEO-CBD and will provide warfighters with a man-portable all-hazard detection and identification system.

An unmanned aerial or ground platform could play an important role in a program

like this, said Navy Vice Admiral Joseph Dyer (Ret.), and now president of the Government & Industrial Robots Division of iRobot Corp., based in Bedford, Mass.

"Robots do the work that is dirty, dull and dangerous," said Dyer. "Robots can go anywhere and virtually represent you." Dyer said that for the CBDEWS program, a valuable capability will be the robot's ability to "map" a potentially contaminated area, correlate the sensor activity in relation to that map, and then communicate that information via Voice over Internet Protocol (VoIP). "You'll be able to pinpoint where there are hotspots and activity with no risk to humans."

Dyer said that 2,300 tactical mobile robots have been delivered to military and civil defense forces. Primarily these robots have performed bomb disposal missions, as well as reconnaissance and search missions.

Burke added: "I agree that unmanned systems have significant potential in the CBRN defense mission. In fact, today JPM NBC CA is fielding an iRobot PacBot with chemical and radiation sensors in Germany as part of our dismounted Joint NBC Reconnaissance System (JNBCRS)."

"We are adding more capability and smarts to our robotic systems," said Dyer. "They grow smarter every year they are in service."

A series of technology demonstrations was held last summer to determine the state of the various fusion and sensor technologies and give warfighters an initial look at how a system like CBDEWS would operate. Multiple government agencies participated in this demonstration in addition to JPEO-CBD including Project Manager Unmanned Aerial Systems, Defense Threat Reduction Agency, Air Force Research Laboratory and Dugway Proving Ground in Utah.

Results from these demonstrations show that the concept for CBDEWS is sound in a fixed-site environment. Multiple sensors were able to detect different threats, and by integrating the data, warfighters were able to quickly identify the hazard. The demonstration included 128 releases of chemical and biological simulants that challenged the sensors to detect, identify and track as the vapor or aerosol clouds moved across the desert for several kilometers.

The next event for CBDEWS is an operational demonstration that will take place in July 2009 at Dugway Proving Ground. This operational demonstration will involve

warfighters and provide them with an opportunity to use a pilot version of the CBDEWS system of systems during live simulant releases. The warfighters will be able to provide direct feedback on the capability, influence requirements development and refine concepts of employment. JPM NBC CA expects to award contracts to two to four integration and fusion vendors to support the demonstration. Other vendors will be invited to participate at their own expense. Based on results of this demonstration, two to four contracts for preliminary designs will be awarded in first quarter FY10.

"Our acquisition route closely follows the new evolutionary acquisition guidance for incremental development, so in that I'd like to think we are using the 'normal acquisition route,'" said Ed Conley, JPEO-CBD team leader for CBDEWS. "However, the traditional waterfall acquisition process would likely have taken five to eight years to field a capability that may become obsolete or irrelevant before fielding." JPEO-CBD plans to field an initial operational capability no later than FY11.

Conley considers his team to be the acquisition reforms presented in DoDI 5000.02 signed in December, due in large part to the JPEO CBD insight into those changes. The JPEO has been a driving force for the CBD community to make the process better, faster and cheaper while maintaining high standards for warfighter chem-bio systems," Conley said, and a competitive acquisition prototype and demonstration helps reduce program risks and helps his organization make better acquisition decisions.

In February, JPEO CBD held an advanced planning briefing to industry (APBI) to outline the development and acquisition cycle of the CBDEWS program. Over 80 companies were represented at the meeting at Aberdeen Proving Ground in Maryland. "We had a very good turnout for a single program's APBI," said Conley. "I think the diversity in the program is one reason it was so well attended. We are looking for multiple vendors to support the program for multiple technologies."

"We all benefit from the capability of CBDEWS. It just makes sense that we collaborate and bring the best technology from each sector forward," said Burke. ★

For more information, contact *MMT* Editor Ted McKenna at tedm@kmmmediagroup.com or search our online archives for related stories at www.MMT-kmi.com.



The advertisers index is provided as a service to our readers. KMI cannot be held responsible for discrepancies due to last-minute changes or alterations.

ADVERTISERS INDEX

Abaxis	27
www.abaxis.com/military	
Abbott Diabetes	13
www.abbottdiabetescare.com	
Bracco Diagnostics	9
www.rsdecon.com	
Camera Screen Laryngoscope Inc	27
www.intubate123.com	
Cera Products Inc.	27
www.ceraproductsinc.com	
Combat Medical Systems	C4
www.combatmedicalsystems.com	
Hardigg	19
www.hardigg.com	
Idaho Technology Inc.	8
www.idahotech.com	
Nonin	25
www.nonin.com	
On Site Gas Systems	21
www.onsitegas.com	
Skedco Inc.	11
www.skedco.com	
Telephonics	C3
www.telephonics.com	

CALENDAR

May 5-6, 2009
JPEO CBD APBI
 Washington, D.C.
www.ndia.org

May 19-20, 2009
USAF Global Medical Readiness Symposium
 Orlando, Fla.
www.giuffrida.org/gmrs09

May 28-30, 2009
Medical Technology, Training and Treatment Conference
 Orlando, Fla.
www.mt3.bz

June 22-25, 2009
Joint CBRN
 Fort Leonard Wood, Mo.
www.ndia.org

June 25-26, 2009
Biodefinition Technologies
 Baltimore, Md.
www.knowledgefoundation.com

July 13-16, 2009
Aerobiology in Biodefense Conference
 Cumberland, Md.
www.trueresearch.org

July 21-24, 2009
AUSA MEDCOM
 San Antonio, Texas
www.ausa.org

August 10-12, 2009
Advanced Technology Applications for Combat Casualty Care
 St. Pete Beach, Fla.
www.usacc.org/ATACCC

August 14-21, 2009
Force Health Protection
 Albuquerque, N.M.
<https://chppm-www.apgea.army.mil/fhp/>



piccolo
 EVERYWHERE EVERYDAY

Simple & accurate on-site blood chemistry analysts in minutes.

Call 800-822-2947
www.abaxis.com/military

Piccolo system and Abaxis are registered trademarks of Abaxis, Inc.



CAMERA SCREEN LARYNGOSCOPE INC.
 PRESENTS
COOPDECH C-SCOPE

Video Laryngoscope



Distributed Exclusively in the U.S. by
CAMERA SCREEN LARYNGOSCOPE
 Brooklyn, NY 11242
 (212) 614-1771

intubate123@gmail.com
intubate123.com



CERA
 PRODUCTS INC.

ORAL HYDRATION TO PREVENT AND CORRECT DEHYDRATION

OSA, VA, DAPA, CEC contracts for US Government agencies

Fast, Effective Delivery
WWW.CERAPRODUCTSINC.COM
 or call 410.309.3000

September 16, 2009
Fort Detrick Vendor Day—Diagnostic Equipment
 Fort Detrick, Md.
dan.kennedy@amedd.army.mil

October 5-7, 2009
AUSA
 Washington, D.C.
www.ausa.org

NEXT ISSUE

Military Medical/ CBRN Technology

Volume 13, Issue 3

Cover and In-Depth Interview with:
Col. Leslie Smith
 Chief of Chemical Corps
 Commander Chemical School

Features

Medical Simulation & Training

The use of training devices and computer-aided tools develop and enhance skills.

Field Hospital Care

The use of digital health care records at the 115th Combat Support, Camp Bucca, Iraq.

Defibrillators

More than just a shock-box, defibrillators have become portable, sophisticated tools that can provide some advice as well as the shock of life when needed.

Individual Protection

Personal gear is the final line of defense against chem/bio agents.

Naval Medical Research Center

NMRC is focused on solutions across the spectrum of health care from battlefield trauma and infectious diseases, as well as non-conventional threats.

Military Vaccine Agency

Working to synchronize information and education, enhance scientific understanding, promote quality, and coordinate military immunization programs worldwide.

Richard A. Jozefowski
Communication Systems Division
Senior Director, Business Development
Telephonics



Q: Tell me about your product and how it addresses a capability gap that exists in the military today.

A: TruLink is a wireless intercommunication system that enables untethered voice communications in and around military platforms including ground vehicles, boats and aircraft. These military platforms create an extremely noisy environment and crew members typically attach a headset to a long cord for establishing communication between each other and with the host vehicle. Or, they resort to shouting and hand signals that are necessary to execute their mission. Long cords are cumbersome and present a safety hazard while shouting and hand signals risk miscommunication during critical mission operations. TruLink eliminates these hazards and risks by providing mobile crew members with clear voice comms between each other and the host platform over a short-range—500 meters—wireless link.

Q: How does the system work?

A: A common configuration of the system consists of a TruLink portable transceiver [TPT] and a TruLink access point [TAP]. The user clips the compact TPT onto their uniform and plugs into their existing military headset. The TAP is integrated onto the host air, sea or ground platform and acts as a bridge for the TPT users to gain access to the platforms' communication assets. Through the TAP, TPT users can speak with each other, communicate to crew on the vehicle's intercom, and communicate over the vehicles' long-range radios. TruLink can also be configured as a stand-alone system where a group of TPT users can independently communicate as their own network.

Q: This sounds like a radio that is plugged into a headset. What makes TruLink different?

A: I mentioned that TruLink is a wireless intercommunication system and is therefore fundamentally different from tradi-

tional radios in the following ways: First, the system provides full-duplex communications, enabling multiple crew members to fully converse and issue urgent commands and alerts as needed. Radios operate in simplex mode where only one user can speak at a time and the undesired result of stepping on each other is common. Second, TruLink is VOX-enabled, which means the user simply speaks to transmit leaving their hands completely free to work on the task at hand. Radios require the user to take action in opening a communication channel by continually pressing a button to transmit. This degrades their effectiveness where typically both hands are needed during a mission operation such as conducting a maintenance procedure, manning a gun, pulling a rope or caring for a patient. Third, TruLink incorporates adaptive noise cancellation so that clear communications can be transmitted even in extremely high noise environments. Radios will transmit both the noise and voice, rendering the communication channel useless. Collectively, these TruLink features give the warfighter a new capability that both enhance mission safety and improve operational effectiveness.

Q: How is TruLink presently used by the military medical community?

A: The TruLink system is ideal for medevac crews on helicopters and ground vehicles, and aeromedical evacuation [AE] teams on fixed wing aircraft. Communication cords are eliminated so medevac crew maintains comms when leaving the platform to assist and retrieve a wounded patient. In addition,

they have the freedom to operate in the tight confines on an aircraft without getting tangled up in cords. Communication is hands-free so they can fully focus on the patient, and the full-duplex feature enables them to readily collaborate across the team in crucial situations. The adaptive noise cancellation feature facilitates clear and effortless communication even under the whirling rotary blades of a medevac helicopter. No other communication system combines these features that support and enhance medevac/AE crew mission capability.

Q: Is TruLink fielded for use by the medevac and AE community today?

A: Yes. TruLink is presently fielded across Army, Navy and Air Force aircraft platforms to support these missions. TruLink is the selected wireless ICS system for the Army and Navy Air Warrior wireless intercom system [AWIS/AWICS]. TruLink is used by naval medevac crews on the HH-60H and MH-60S Navy air ambulance platforms and has supported short haul operations on numerous in-theater missions. The Army AWIS program is also managing an encrypted variant of TruLink that will enable medevac crews to access secure long-range radios. The Air Force has recently made a major investment in TruLink to support the mission of their AE teams. TruLink will be used for long haul operations to enhance the safe transport and care of patients on-board C-17, C-130E/H/J and KC-135 aircraft. A typical AE team consists of five crew members that are responsible for the medical care of multiple patients while being transported onboard aircraft. TruLink enables the AE medical crew director, flight nurse and medical technicians to move freely around the aircraft, untethered by restrictive cords, while maintaining hands-free, clear voice communication between each other in the high noise environment of the aircraft. These unique features enable the team members to focus on the safe transport of patients. ★

jozefowski@telephonics.com

TruLink[®]

Wireless Voice Communication for Medevac Applications

- Full-duplex Wireless Voice Intercommunication System
- Communicate in High Noise Environments with Hands-free Operation
- Enhance Operational Safety
- Interface to Existing Wired Intercom Systems
- Options for Encrypted Variants



For Further Information contact Richard Jozefowski
Ph: 631-548-6042 E-Mail: jozefowski@telephonics.com

TELEPHONICS[®]
A CAYMAN COMPANY



COMBAT MEDICAL SYSTEMS



Mojo Medical Kits ...Got Mojo?



MOJO 314
SQUAD SERIES

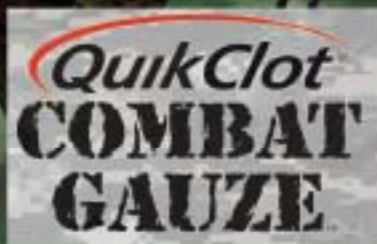


MOJO 'B2
INDIVIDUAL SERIES



TacEvac
Tactical Casualty Movement System™

EVERY MISSION.
EVERY AIRCRAFT.
ALWAYS READY.



PACK IT, WRAP IT
STOP BLEEDING COLD.



X COLLAR



NEXSPLINT



PLEASE VISIT OUR WEBSITE FOR MORE INFORMATION.

WWW.COMBATMEDICALSYSTEMS.COM

1441 D YADKIN RD. FAYETTEVILLE NC 28303 710.425.0003