

# The Chemical Corps and the Coast Guard-Interoperability Strengthens CBRN Homeland Security Resources

By Lieutenant Commander Dennis E. Branson



ince the summer of 2001, I have been assigned as the first U.S. Coast Guard (USCG) Liaison at the U.S. Army Chemical School (USACMLS) at Fort Leonard Wood, Missouri. As a member of the Coast Guard's National Strike Force (NSF)—a specialized USCG response organization—I have the opportunity to provide a link between two very dynamic, and similar, organizations. One of my primary tasks as a USCG/NSF Liaison is to provide a conduit to educate the members of each organization about the capabilities of the other. This article provides an overview of the NSF and the federal response duties they possess for DoD personnel. This will be vital in the coming years as the Department of Homeland Security (DHS) & Joint Services communities work more together for national security.

## **USCG National Strike Force**

The National Strike Force (NSF) established in 1973 (under the Federal Water Pollution Control Act of 1972), is a vital national asset comprised of a unique, highly trained cadre of Coast Guard professionals who maintain and rapidly deploy with specialized equipment and incident management skills. The NSF is recognized worldwide as experts in preparedness and response to mitigate the effects of oil discharges and hazardous substance releases. The NSF supports the entire National Response System by minimizing the adverse impact to the public and reducing environmental damage from oil discharges and hazardous substance releases.

The NSF was formed primarily as a pollution response team. Since that time, the NSF has evolved into a rapidly deployable resource for hazardous material (HAZMAT), petroleum, and chemical-biological incidents. The extensive training and experience its members have had over a broad spectrum of cases has propelled the NSF into the arena of Chemical, Biological, Radiological, and Nuclear (CBRN) response. By strengthening the interface between the NSF and the Chemical Corps, we hope to become better equipped to meet the new responsibilities.

The NSF consists of three regionally based "Strike Teams": the Atlantic Strike Team (AST) at Fort Dix, New Jersey; the Gulf Strike Team (GST) in Mobile, Alabama; and the Pacific Strike Team (PST) at Fort Hamilton in Novato, California. The NSF Coordination Center (NSFCC) in Elizabeth City, North Carolina, supports each of these teams and is also home to the Preparedness for Response Exercise Program (PREP) staff, the Public Information Assist Team (PIAT), and the National Inventory of Oil Spill Removal organizations. The NSF employs nearly 200 active-duty, civilian, and reserve USCG personnel. The NSF is on call 24 hours a day, 7 days a week with the capability of deploying via land, sea, or air.

## National Response System (NRS)

The NSF is an integral part of the existing National Response System (NRS)—a network of numerous federal, state, and local agencies that prepare for and respond to oil and hazardous substance releases, including chemical and biological terrorism incidents. The NRS activates immediately upon notification from the National Response Center or any agency involved in an incident.

## Federal On-Scene Coordinators

The FOSC is the central figure in the NRS. Under the National Contingency Plan (NCP), the FOSC leads local preparedness





The Chemical and Biological Defense Information Analysis Center (CBIAC) is a Department of Defense (DoD)-sponsored Information Analysis Center (IAC) operated by Battelle Memorial Institute and administered by the Defense Information Systems Agency (DISA), Defense Technical Information Center (DTIC) under the DoD IAC Program Office (Contract No. SPO700-00-D-3180).

The CBIAC Contracting Officer's Technical Representative (COTR) may be contacted at the following address:

CDR USA RDECOM Edgewood Chemical Biological Center ATTN: AMSRD-ECB-RT (CBIAC COTR) 5183 Blackhawk Road Aberdeen Proving Ground, MD 21010-5424

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





## **Table of Contents**

| Winter 2004   | Volume 5                         | Number 1        |
|---|----------------------------------|-----------------|
| The Chemical Corps and the Coast<br>Interoperability Strengthens CBRN<br>Security Resources | Guard-<br>Homeland               | 1               |
| HISTORY NOTES: The CWS Effort t<br>Chemical Weapons for Retaliation                         | o Obtain C<br>Against Jap        | German<br>Dan 3 |
| Contract Awards   |                                  | 4               |
| New CBIAC Information Resources   |                                  | 5               |
| Calendar of Events  |                                  | 6               |
| A Sampling of Website Links to We<br>Destruction (WMD)/ Counterterror<br>Resources          | apons of <i>N</i><br>ism Trainir | lass<br>Ig<br>7 |
| CHPPM Documents Key Industrial<br>Concern to the Military                                   | Chemicals                        | of<br>8         |
| In the News   |                                  | 9               |
| New JPEO-CBD publication: Chem<br>Quarterly   | Bio Defen                        | se<br>12        |
| 2004 CBIAC Products   |                                  | 14              |
| 2004 User Survey  |                                  | 16              |
|   |                                  |                 |

The **CBIAC Newsletter**, a quarterly publication of the CBIAC, is a public release, unlimited distribution forum for chemical and biological defense information. It is distributed in hardcopy format and posted in Portable Document Format (PDF) on the CBIAC Homepage.

The CBIAC welcomes unsolicited articles on topics that fall within its mission scope. All articles submitted for publication consideration must be cleared for public release prior to submission. The CBIAC reserves the right to reject or edit submissions. For each issue, articles must be received by the following dates: Winter (First Quarter) - November 1st; Spring (Second Quarter) - February 1st; Summer (Third Quarter) - May 1st; Fall (Fourth Quarter) - August 1st.

All paid advertisements and articles are subject to the review and approval of the CBIAC COTR prior to publication. The appearance of an advertisement or article in the *CBIAC Newsletter* does not constitute endorsement by the DoD or the CBIAC.

The CBIAC is located in building E3330, Room 150, Aberdeen Proving Ground-Edgewood Area, Maryland 21010. For further information or assistance, visit or contact the CBIAC.

### **CBIAC**

Aberdeen Proving Ground - Edgewood Area P.O. Box 196 • Gunpowder, MD 21010-0196 410.676.9030 410.676.9703 (fax)

General Information & Core Program: cbiac@battelle.org Technical Area Task Program: cbiac-tat@battelle.org Knowledge Management & Development Program: cbiac-kmd@battelle.org

http://www.cbiac.apgea.army.mil/



Throughout the Second World War the United States chemical warfare policy was of deterrence. The United States had not ratified the signing of the Geneva Protocol of 1925, and thus was not obligated to a "No First Use" policy. Regardless, the longstanding position of the United States, from the First World War, and reiterated in the Second World War, was a retaliatory policy.<sup>1</sup> To support this policy, the Chemical Warfare Service (CWS) maintained a credible offensive chemical capability.



1,100-lb tear gas aerial bomb is hoisted and loaded by a huge crane from a field stack onto a railer for shipment by rail to Bremen, Germany, where it will be disposed of by the Genera Service Company, destroying captured enemy gas at the CW Chemical Depot Schierling, Germany (U.S. Army, 17 May 1946).

Serious planning for the final invasion of Japan started in January 1945. Known as Operation DOWNFALL, U.S. planners sought the invasion of Kyushu Island (Operation Olympic) in the Fall of 1945 as a strategic staging for the final capitulating invasion of the Japanese main island (Operation CORONET) in the spring of 1946. X-Day of OLYMPIC was probably the largest amphibious invasion plan in history, and the estimates of U.S. losses were anticipated to be massive against a determined enemy that had demonstrated the will to fight to the last man.

It was well known that the Japanese had chemical weapons, and had used them in their invasion of China. A suspected case had also been documented that Japanese forces, with chemical weapons on hand, would use them against Allied forces when faced with annihilation.<sup>2</sup> The chemical threat to Allied forces was real and the CWS made serious plans for massive chemical retaliation against Japan for Operation OLYMPIC.

Army Air Force (AAF) chemical retaliatory plans called for the use of persistent 100-lb bombs (Mustard Gas) and nonpersistent 500-lbs bombs (60% Phosgene filled, 40% Cyanogen Chloride filled). The totals required in the Pacific theater showed a massive shortage based on 120 days usage, included an extra quantity for the first 15 days for an initial effect.

For persistent bombs it was noted that 5,181,000 bombs were required and only 855,000 bombs were on-hand. For nonpersistent bombs, 776,000 were required and only 271,000 were on-hand. On-hand estimates were based on chemical weapon stocks in the Pacific Asiatic Theater, European Mediterranean Theater, and Zone of the Interior stocks. With the surrender of Germany in May 1945, the CWS contemplated augmenting its arsenal with captured German chemical weapons to address this shortage.<sup>3</sup> Germany had a significant chemical arsenal of Mustard Gas and Phosgene in 250-kg bombs. The AAF requested that some of these bombs be returned to the United States for immediate evaluation for carriage on U.S. aircraft and to establish munition requirements to achieve tactical objective similar to those described in TC 20 (26 April 1945).<sup>4</sup> BG Alden Waitt, then Assistant Chief CWS for field operations, requested with the highest priority that 100 bombs each of Mustard Gas, Phosgene, and LE-100 be returned to the United States for evaluation. By the end of June 1945, it was determined that the bombs were entirely suitable for



German 250-kg chemical bombs formerly in the Chemical Corps Museum's collection (U.S. Army Chemical Corps Museum, C. 1950)

#### Winter 2004

# **Contract Awards** • by Mary Frances Tracy

## Antiterrorism/Force Protection Tier 3 Upgrades

EAI Corporation • Abingdon, MD \$22,683,224 September 30, 2003 By U.S. Army Robert Morris Acquisition Center, Aberdeen Proving Ground, MD

## Installation Preparedness Support for Assessments, Training, and Provision of 20 Army Bases

EAI Corporation • Abingdon, MD \$21,784,000 September 30, 2003 By U.S. Army Robert Morris Acquisition Center, Aberdeen Proving Ground, MD

### **Chemical/Biological Gas Mask Kits**

Mine Safety Appliances • Murrysville, PA \$6,605,595 September 30, 2003 By Warner-Robins Air Logistics Center, Robins Air Force Base, GA

### **Chemical Protective Gloves**

North Safety Products • Charleston, SC \$10,085,662 September 30, 2003 By Defense Supply Center Philadelphia, Philadelphia, PA

# Grant to Develop Instrument for Rapid Detection of Plague Organisms

Spire Corporation • Bedford, MA \$100,000 Phase I SBIR September 30, 2003 By Centers for Disease Control and Prevention (CDC), Atlanta, GA

## **Biological Point Detection Based on the Amplifying** Fluorescent Polymer Platform

Oklahoma State University • Stillwater, OK \$1,897,870 October 1, 2003 By U.S. Army Robert Morris Acquisition Center, Aberdeen Proving Ground, MD

## Study Ways to Detect, Identify and Treat Diseases Terrorists Could Use to Pollute the Nation's Food and Water Supply

Tufts University School of Veterinary Medicine Grafton, MA \$25,000,000 October 2, 2003 By National Institutes of Health, Bethesda, MD

# **Continue Development of an Improved Anthrax Vaccine and Manufacture of 6 Million Doses**

VaxGen Inc. • Brisbane, CA \$80,300,000 October 2, 2003 Avecia Group • Manchester, England \$71,300,000 October 2, 2003 By National Institutes of Health's National Institute of Allergy and Infectious Diseases (NIAID), Bethesda, MD

### **Luminescent Field Sensor**

Texas Tech University • Lubbock, TX \$391,016 October 30, 2003 By U.S. Air Force, Patrick AFB, FL

# Grants for State and Local Emergency Personnel to Respond to Future Terrorist Attacks

\$4 Billion November 4, 2003By Department of Homeland Security, Washington, DC

### **Production of Botulism Anti-Toxin**

Auburn University's College of Veterinary Medicine Auburn, AL \$12,300,000 November 4, 2003 By Centers of Disease Control and Prevention, Atlanta, GA

## **Anthrax Vaccine Doses**

BioPort Corporation • Lansing, MI \$29,722,975 (as part of a \$245,539,956 firm-fixed-price contract) December 31, 2003 By The U.S. Army Space and Missile Defense Command, Fort Detrick, MD

## PAID ADVERTISEMENT

EMERGENCY RESPONSE SOFTWARE & HARDWARE

## BECAUSE EVERYONE IS INVOLVED

CoBRA® software and hardware provides military and emergency responders with a complete package of recognized procedures, checklists, guides and tools developed for response and management of incidents from fire to HAZMAT to terrorism.

Dan't wait, request more information on CoBRA\* today.



1-877-233-5789 - www.cobraguides.com - cobra@cobraguides.com

# **New CBIAC Information Resources** • By Richard M. Gilman

## Books

Mauroni, Al. Chemical and Biological Warfare: A Reference Handbook. Santa Barbara, CA: ABC-CLIO, 2003.

Includes chapter-length treatments of background information on CB weapons and their history, controversial CB issues—both past and present, motivations for countries to develop CB weapons, a chronology of CB warfare, CB weapons systems, national and international organizations that deal with CB issues and CB information resources.



CB-190651 ISBN 1-85109-482-2 ABC-CLIO, Inc.

130 Cremona DriveP.O. Box 191 1Santa Barbara, CA 93116-1911 Phone: (800) 368-6868 http://www.abc-clio.com/

Ryabchikova, Elena and Barbara Price. **Ebola and Marburg Viruses: A View of Infection Using Electron Microscopy**. Columbus, OH: Battelle Press, 2003.

"Consolidates recent literature with insight developed in over thirty years in electron microscopy and 15 years in virology to tell the story of filoviruses and how they invade and conquer their hosts. The book describes the dynamic properties of these viruses and follows the stages of filoviral infection from the individual cell to the whole organism and reconstructs the sequential events that occur in filoviral infections." (Publisher's synopsis)



CB-009904 • ISBN 1-57477-131-0 Joe Sheldrick • Battelle Press 505 King Avenue • Columbus, Ohio 43201-2693 Phone: 614-424-6393 • Toll Free: 1-800-451-3543 Fax: 614-424-3819 http://www.battelle.org/bclscrpt/Bookstore/default.cfm

## **Documents**

Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction. **Fifth Annual Report to the President and Congress of the United States of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction. V. Forging America's New Normalcy**. Santa Monica, CA: Rand Corporation, 2003. http://www.rand.org/nsrd/terrpanel/volume\_v/volume\_v.pdf

"In developing this year's report, panel members all agreed at the outset that it could not postulate, as part of its vision, a return to a pre-September 11 "normal." The threats from terrorism are now recognized to be a condition that we must face far into the future. It is our firm intention to articulate a vision of the future that subjects terrorism to a logical place in the array of threats from other sources that



the American people face every day— from natural diseases and other illnesses, to crime, and traffic and other accidents, to mention a few. The panel firmly believes that terrorism must be put in the context of the other risks that we face, and that resources should be prioritized and allocated to that variety of risks in logical fashion." (*Preface*)

Chapter-length discussions include "Developing a Future Vision," "America's New Normalcy," and "A Roadmap to the Future."

Includes numerous tables and 17 appendices.

## CB-191197 Rand Corporation 1700 Main Street • P.O. Box 2138 • Santa Monica, CA 90407

Phone: (301) 451-6915 http://www.rand.org

## Davis, Lynn E. et al. Individual Preparedness and Response to Chemical, Radiological, Nuclear and Biological Terrorist Attacks: A Quick Guide.

Santa Monica, CA: Rand Corporation, 2003. http://www.rand.org/publications/MR/MR1731.1/MR1731.1.pdf

"This Quick Guide presents a strategy that individuals can adopt to prepare for and respond to terrorist attacks involving chemical, radiological, nuclear, and biological weapons. The strategy is designed to provide simple and clear guidance for individuals to help protect themselves in the event of an actual

## **Calendar of Events**

If you would like to have a Chemical and/or Biological Defense or Homeland Security course or event posted on the CBIAC Calendar of Events, submit the pertinent information via email to **cbiac@battelle.org**. Due to space limitations, the CBIAC will accept submissions on a first-come, first-served basis and reserves the right to reject submissions. For a more extensive list of events, visit our website at http://www.cbiac.apgea.army.mil/.

## April 5-8, 2004 30<sup>th</sup> Environmental and Energy Symposium & Exhibition: A Forum for Preserving the Future

San Diego, CA http://register.ndia.org/interview/register.ndia?PID=Brochure&SI D=\_12Z0OIUV4&MID=4440

## April 6-7, 2004 DOD Advance Planning Briefing for Industrial (ABPI) Chemical Biological Defense

Laurel, MD http://register.ndia.org/interview/register.ndia?PID=Brochure&SI D=\_10T0M52JX&MID=4370

## April 6-8 2004

## Threat and Risk Assessment for WMD

Los Alamitos, California Facilitators: Kathleen Hollingsworth & Fadi Essmaeel MD CEM POC: Kellee Phone: 714.960.6483 or 310.377.9493 http://www.house.gov/rohrabacher/HS04-06-04.htm

## April 19-21, 2004

**5th International Symposium on Interface Between Analytical Chemistry and Microbiology** Richland, WA http://www.pnl.gov/nsd/bio\_interface\_conf/index.stm

## April 19-22, 2004

## Symposium on Air Quality Measurement Methods and Technology

Research Triangle Park, NC http://www.awma.org/events/confs/Measurements/default1.asp

## April 19-23, 2004 COURSE: Field Management of Chemical and Biological Casualties (FCBC)

Aberdeen Proving Ground, MD ccc@apg.amedd.army.mil http://ccc.apgea.army.mil/courses/in\_house/brochureFCBC.htm

### April 21-22, 2004 Spring IEEE Conference on Technologies for Homeland Security Cambridge, MA

http://www.ieee-boston.org/homeland.htm

## April 21-23, 2004 **5th Annual Science and Engineering Technology Conference /DOD Tech Exposition** North Charleston, SC http://www.ndia.org

April 25-28, 2004

## ESTECH 2004 – the 50 th Annual Technical Meeting and Exposition "Year of the Expo" Las Vegas, NV http://www.iest.org/estech/estech.htm

## April 29, 2004 2004 Strike, Land Attack & Air Defense (SLAAD) Annual Symposium

Laurel, MD http://register.ndia.org/interview/register.ndia?PID=Brochure&SI D=\_14A0YC2KS&MID=4100

## May 3-6, 2004 2004 NDIA-U.S. Coast Guard Innovation Expo & Industry Day

Savannah, GA http://register.ndia.org/interview/register.ndia?PID=Brochure&SI D=\_14A0Y54PK&MID=4230

### May 5-6, 2004

ISR In the Urban Environment- Characterizing the 3-D Battlespace Washington, DC

http://www.kingpublishing.com/conferences/index.html

## May 6, 2004 **Collaborative Technology Alliances Conference 2004** Washington, DC http://www.ctac2004.com

May 16-19, 2004 Virginia Emergency Management Conference Williamsburg, VA http://www.convplus.com/vemc04confnnounce.htm

## May 16-21, 2004 **COURSE: Medical Management of Chemical and Biological Casualties (MCBC)** USAMRICD, APG, MD and USAMRIID, Ft. Detrick, MD ccc@apg.amedd.army.mil http://ccc.apgea.army.mil/courses/in\_house/brochureMCBC.htm

May 16-21, 2004 **Bioscience 2004 Medical Defense Review** Hunt Valley, MD (by invitation only)

May 17-19, 2004 Decon 2004 Tampa, FL https://www.enstg.com/Signup Conference Code: 5TH23624

## A Sampling of Website Links to Weapons of Mass Destruction (WMD)/ Counterterrorism Training Resources

Numerous training resources for WMD/ CBRN Counter terrorism resources and information are now available. Here is an alphabetical listing of training resources that were located on the Web. This list is not comprehensive, and the appearance of a website in the listing is not an endorsement of the organization or program. All links were active at the time of publication. Please let the CBIAC know if you have a WMD, CBRN Counter terrorism training program available to the CB Defense and Homeland Security communities. Information can be emailed to cbiac@battelle.org.

Armed Forces Radiobiology Research Institute (AFRRI) Military Medical Training http://www.afrri.usuhs.mil/www/outreach/training.htm

**Center for Disease Control and Prevention (CDC)** Emergency Preparedness and Response http://www.bt.cdc.gov/Training/

**Center for Domestic Preparedness** in Anniston, Alabama www.ojp.usdoj.gov/odp/docs/fs-cdp.htm

**Colorado Office of Preparedness, Security, and Fire Safety (OPSFS)** Training and Exercises Page http://ops.state.co.us/training.htm

**Domestic Preparedness Campus** www.teexwmdcampus.com

**EAI Corporation** WMD Training for Special Circumstances http://www.eaicorp.com/training.htm

**Emergency Management Institute** http://training.fema.gov/EMIWeb/

#### FEMA

Compendium of Federal Terrorism Training for State and Local Audiences www.fema.gov/compendium/index.jsp

### FEMA

First Responder http://www.training.fema.gov/

#### Firehouse.com

Training Zone www.firehouse.com/training/wmd

Kentucky Emergency Management WMD In-State Training Program KyEM HAZMAT/WMD Team training Center http://kyem.dma.ky.gov/training/wmd/training.htm

Medical NBC Online Information Server http://www.nbc-med.org/ie40/Default.html

National Center for Biomedical Research and Training (NCBRT) http://www.ace.lsu.edu/

National Emergency Response and Rescue Training Center (NERRTC)

http://www.teex.com/teex.cfm?pageid=homelandsecurity&area=teex&templateid=871

NDLC• NDACo (North Dakota Association of Counties) www.ndaco.org/ Nevada Test Site http://www.nv.doe.gov/nts/default.htm

New Mexico WMD Working Group www.wmd-nm.org/mods/modtraining/index.asp

South Carolina Emergency Management Division (SCEMD) www.state.sc.us/emd/training/courses.htm

South Dakota Office of Emergency Management Weapons of Mass destruction/Terrorism Program www.state.sd.us/dps/sddem/wmd/training.htm

Technical Support Working Group (TSWG) CoMNET and Live Response WMD Training Broadcasts www.tswg.gov/tswg/ttd/CoMNET.htm

**Technical Support Working Group (TSWG)** Psychological Impacts and Effects (PIE) Course www.tswg.gov/tswg/ttd/PIE.htm

**Tennessee.gov** Tennessee Emergency Management Agency-TEMA TEMA domestic Preparedness/Terrorism Training Courses http://www.tnema.org/Training/Default.htm

Training Division of the FBI: Counterterrorism/Weapons of Mass Destruction Training Links www.fbi.gov/hq/td/academy/ctwork12.htm

U.S. Army Medical Research Institute of Chemical Defense -Chemical Casualty Care Division http://ccc.apgea.army.mil/

U.S. Army Medical Research Institute of Infectious Diseases http://www.usamriid.army.mil/education/index.html

U.S. Department of Homeland Security Office for Domestic Preparedness http://www.ojp.usdoj.gov/odp/ta/training.htm

United States Public Health Service Noble Training Center http://www.training.fema.gov/emiweb/NTC/

Vermont Homeland Security www.dps.state.vt.us/homeland/training.html

WMDFirstResponders.com WMD Training opportunities www.wmdfirstresponders.com/training.htm

WMD/HAZMAT Initial Awareness Training http://www.ndaco.org/webpdf/upload/documents-WMD%20Training%20Flyer.pdf

7

## New CBIAC Info. Resources cont.

terrorist attack, which may involve extremely hazardous and unfamiliar conditions. Steps that individuals are now taking or might take to avoid such attacks are not part of this strategy." (*Preface*)

CB-191198 Rand Corporation 1700 Main Street P.O. Box 2138 Santa Monica, CA 90407-2138 Phone: (310) 451-6915 http://www.rand.org



Ferguson, Charles D., Tahseen Kazi and Judith Perera. Commercial Radioactive Sources: Surveying the Security Risks. Monterey, CA: Center for Non-Proliferation Studies, Monterey Institute of International Studies, 2003. http://cns.miis.edu/pubs/opapers/op11/op11.pdf

"This study examines the security risks posed by commercial radioactive sources. While these sources provide benefits to humanity through numerous applications in medicine, industry, and research, some of these materials, if not secured, may end up in radiological dispersal devices (RDDs)—one type of which is popularly known as a "dirty bomb." Though RDD use has not occurred, the September 11, 2001 terrorist



attacks, al Qaeda's expressed interest in acquiring the means to unleash radiological terror, and widespread news reporting on this topic have sparked renewed concern about the security of commercial radioactive sources." (*Executive Summary*)

## CB-191199

Center for Non-Proliferation Studies Monterey Institute of International Studies 460 Pierce Street • Monterey, California 93940 Phone: (831) 647-4154 • Fax: (831) 647-3519 http://cns.miis.edu

# CHPPM Documents Key Industrial Chemicals of Concern to the Military

To help focus military research, combat development, and acquisition communities' concerns regarding the potential military risks from hazardous and toxic industrial chemicals (TICs), the U.S. Army Center for Health and Promotion and Preventive Medicine (USACHPPM) has completed a report (USACHPPM, November 2003, For Official Use Only (FOUO)) that identifies key priority industrial chemicals of concern. This report was based on a multi-national military effort supported by Canada, the United Kingdom, and the U.S. and represents the U.S. Army's most current source of priority industrial chemicals information. Previous prioritized lists have been developed to support military as well as homeland defense needs to determine enhanced detection and protection needs. However, there were some questions as to the adequacy of the methodology and limited focus of the previous efforts. As such, the current 2003 initiative re-evaluated and expanded upon these earlier efforts. The result is a more extensive evaluation and modified methodology that includes assessment of over 1700 industrial chemicals. This includes not only a list of key acute inhalation toxic industrial chemicals (TICs), but also a list of key chemicals/compounds that pose substantial physical risk (from fire/explosion) and a key list of those that may pose acute ingestion risks (such as in water supplies). The methodology was designed to rank such hazards from a global strategic military perspective, but may be adapted to address more site/user specific needs to include homeland defense applications.

As an FOUO document, the report and supporting reference files are available through CBIAC to government personnel. Designated government contractors requiring this information should have their government POCs request/obtain the files. The actual Excel spreadsheets used in the sorting and ranking process are also available through specific authorization from the USACHPPM.



# In the News • By Mary Frances Tracy

## **Bush Signs \$31 Billion Homeland Security Bill**

Gerry J. Gilmore

#### **American Forces Information Services/ American Forces Press Service** October 1, 2003

"President George W. Bush today signed legislation providing \$31 billion for Homeland Security purposes for fiscal 2004." http://www.defenselink.mil/news/Oct2003/n10012003 200310 017.html

### **Agilent Measures Market For Tool Against Terrorism** Michele Chandler

## **The Mercury News**

October 15, 2003 "Agilent Technologies has a new piece of ammunition in the

fight against terrorism: a lab-on-wheels. The Palo Alto company has developed a mobile laboratory, installed in a van, that's able to detect everything from anthrax, arsenic and Ebola virus to sarin nerve gas. Agilent is marketing its van as a way to protect communities nationwide that were shaken by the Sept. 11 terrorist attacks."

http://www.bayarea.com/mld/mercurynews/business/ 7017993.htm

## **Bioweapons Vets Urged To Share Secrets**

Military.com/ Associated Press October 16, 2003 "They are veterans of biological weapons research dating back to World War II and the Cold War. They have done their duty, and they have kept their secrets. But that's a problem, says retired Army Gen. John S. Parker...

Parker would like to produce a public document to help guide the nation's response to the threat of biological weapons. It could broaden the foundation for biodefense research and reduce duplication of work done decades ago." http://www.military.com/NewsContent?file=FL vets 101603

## **UM, MSU Win Grant To Teach Terrorism Readiness** Betsy Cohen

## The Missoulian

October 21, 2003 "Montana's flagship universities have landed a federal grant to become training grounds for combating bioterrorism. Armed with \$200,000 from the Bioterrorism Training and Curriculum Development Program of the U.S. Health Resources and Services Administration, faculty at the University of Montana and Montana State University will create a program to teach pharmacy, nursing and allied health students what to do in case of a disaster.

The grant is one of 12 administered to universities nationwide..."

http://www.montanaforum.com/rednews/2003/10/21/build/safet y/terror-ready.php?nnn=6

## Homeland Security: Tech Partners Needed

Grant Gross **IDG News Service** November 11, 2003 "Private companies can play a role in national security by

pitching technology projects to the U.S. Department of Homeland Security (DHS) and other agencies, agency representatives said Monday.

DHS has begun to solicit the private sector for technologies to combat biological and chemical weapons, and the agency will look for more technology partners in the future ... " http://www.itworld.com/Tech/2987/031111homelandtech/

## **Small-Molecule Inhibitors Of Botulinum Neurotoxin** Identified

Caree Vander Linden

USAMRIID Public Release November 13, 2003 "Scientists have identified several key molecules that block the activity of a toxin that causes botulism -- an important first step in developing therapeutics to counter the disease. " HTTP://WWW.EUREKALERT.ORG/PUB RELEASES/2003-11/UAMR-SIO111303.PHP

## **Guard's WMD Unit to Expand**

**B.J.** Reves

## The Honolulu Advertiser/ Associated Press

November 23, 2003

"The Hawaii National Guard has received authorization to begin a pilot program to train teams that would be permanently deployed on remote Pacific islands to respond to threats posed by weapons of mass destruction, Maj. Gen. Robert Lee, the state adjutant general, said."

http://the.honoluluadvertiser.com/article/2003/Nov/23/ln/ln13a. html

## **AMC Honors Top 10 Greatest Inventions**

Larry D. McCaskill **RDECOM Magazine** 

November 2003 "The U.S. Army Materiel Command has developed the Greatest Inventions Awards Program (2002) to recognize AMC's best technology solutions for the Soldier. The awards recognize the inventions that best demonstrate military application and utilitv..."

http://www.rdecom.army.mil/rdemagazine/200311/itf\_invention s.html

## Smiths Detection Introduces Bio-Seeq, A Pioneering Hand-**Held Bio Agent Detector**

**Smiths Detection Press Release** November 24, 2003 "Smiths Detection, the world's leading provider of trace detection equipment, today announces the launch of the first hand-held biological detection unit capable of identifying anthrax. Called Bio-Seeq, it is able to test for anthrax on-site, providing accurate results in 30 minutes or less." http://www.smithsdetection.com/PressRelease.asp?autonum=5

## **University Of Southern California Chosen As First Homeland Security Center For Excellence U.S. Department of Homeland Security Press Release**

Continued pg. 12

## "The Chemical Corps" cont.



efforts (in coordination with state and local agencies and private industry) and provides the federal lead during an actual response. Through the area committee process, response protocols are developed, joint priorities are established, and response resources are identified through an interagency collaborative process. In the event of an actual incident, the FOSC would establish a response organization using the Incident Command System (ICS) while incorporating federal, state, local, and private resources into a single response structure. As part of a Unified Command System (UCS), the Coast Guard's FOSC works closely with local officials (for example, the cognizant fire chief) and representatives from the state to aggressively respond to an incident. As the government's primary response mechanism for oil spills and hazmat releases, the FOSC clearly has the ability to force the Responsible Party (RP) to comply. In those cases where the RP is unwilling (or unable, not identifiable, etc.) then the FOSC has clear access to "open up" the Oil Spill Liability Trust Fund for oil spills, or the "Superfund" for HAZMAT releases. The DOD & DOE both have FOSC authority for specific types of spills and releases. These agencies can be the sole responding organizations if the occurrence is on their property (see the Federal Regulations in 40 CFR 300.5).

## **Special Teams**

For planning, coordination, and interoperability, the FOSC is supported by representatives from more than 16 federal agencies at the regional level through the Regional Response Teams (RRT) - which in turn have a mirror organization for national coordination, planning, policies, and interagency coordination known as the National Response Team (NRT). The EPA is the chair and the USCG is the vice chair of the NRT. All of these relationships, roles, capabilities, and responsibilities are outlined extensively in the National Oil and Hazardous Substances Contingency Plan, commonly referred to as the NCP, and found in Title 40 CFR 300. In addition to the capabilities of the involved local response community, FOSCs also have access to government "Special Teams." Some of these teams include: the NSF; the Environmental Protection Agency's (EPA's) Emergency Response Team (ERT); the Department of Energy's (DOE) Radiological Emergency Response Team; the National Oceanic and Atmospheric Administration's (NOAA) Scientific Support Coordinators (SSC); the Navy's Supervisor of Salvage (SUPSALV). For a full listing of all the members of the NRT, see their website at www.nrt.org.

## The New Homeland Security Environment

Presidential Disaster Declarations are made under the Stafford Act - the federal vehicle for responding to man-made or natural disasters. Following a request by a state's Governor, the Federal Response Plan (FRP) is followed by pre-identified elements of the NRS and is broken down into Emergency Support Functions (ESFs). Upon activation of the FRP, the USCG typically supports Emergency Support Functions #1 (transportation) and #10 (hazmat).

With FEMA now a pillar organization of the new Department of Homeland Security (DHS), there is currently a great effort underway by all response arms of the DHS to provide a clearer plan to incorporate the NCP, FRP and the Federal Radiological Emergency Response Plan (FRERP) with the end result to be the National Response Plan (NRP). Till then, the tenants of the FRP remain applicable, but the actual response efforts under the new DHS environment will prove interesting.

## **NSF** Capabilities and Skill Sets

## Incident Management Organization Sustainability

As ICS subject-matter experts, NSF personnel often provide highly trained, multi-contingency incident management teams (12 to 16 people) to support OSCs for nationally (or local) significant incidents and exercises. Incident management support includes qualified personnel to support staffing of Emergency Operations Centers, Disaster Field Offices (DFO), and Regional Operations Centers (ROC) during FRP responses. They are also able to provide ICS technical expertise to support national and regional incident command teams.

## **Response and Consequence Management**

The NSF, although an active duty organization within the USCG, is also a national asset and can be utilized by FOSCs and the National Command Authority. During the WTC cleanup and the Washington, D.C./Boca Raton, Florida, biological remediation, members of the NSF proved they have the technical expertise and specialized response skills necessary to support OSCs from the earliest "assessment phase" through disposal and case closure. NSF teams possess equipment not readily available in the private or public sector (for example, stainless steel HAZMAT transfer pumps and high-capacity oil pumps, new oil-skimming systems or containment

## "The Chemical Corps" cont.

boom which industry now has an adequate inventory). Other response and on-scene support capabilities include—

- HAZMAT teams that provide oil/HAZMAT source control, bulk liquid lightering, environmental assessment, and removal/oversight in a hazardous-atmosphere environment. Currently, the NSF has three response teams with the ability to conduct Occupational Safety and Health Administration (OSHA)-compliant Level A and B entries. Also, efforts are now underway to expand the current fielding strength for additional entry teams.
- Oil response teams with the capability to support bulk oil removal operations. The NSF currently has three Level B/C teams (environmental assessment team, communications group, and logistics group).
- Incident management teams whose knowledge and experience include ICS positions throughout the continuum of ICS staffing for FRP responses. They have a limited ability to support OSCs during consequence management operations under the FRP and NCP responses and to support USCG incident commanders during non-NCP/FRP response operations.
- **Public information assist teams** made up of specially trained personnel who provide mobile crisis media relations and crisis communications assistance.
- **Environmental assessment teams** that provide technical expertise in air monitoring; special-monitoring, applied-response technology sampling; and shoreline assessment evaluation.
- **Removal oversight teams** that monitor material removal operations according to the FRP mission assignment or direction from the OSC.

## Interoperability

A key strength that has clearly contributed to the success of the NSF is that the teams are trained, manned, and equipped so the personnel on each team are essentially interchangeable. On virtually every major event in which a strike team deploys, personnel from the other teams come in to assist and augment operations. Everybody assigned to a team is sent to the annual NSF training drawdown (affectionately referred to as NSF "boot camp") that is held in the late summer/early fall. Other training opportunities are offered jointly so training is consistent and the teams remain interoperable.

The USCG Headquarters Office of Marine Safety Response (referred to as G-MOR) has recently completed a multi-agency review of the NRS's special teams to enhance their interoperability. The goal of this review was:

- Assess the special teams' individual and collective response assets/capabilities;
- Project the role the teams will play in future operations;
- Identify gaps that may currently exist and a strategy for filling in those gaps.

### Internal Training and Professional Development

Through the formal relationship bridge provided by the Liaison Officer position at Fort Leonard Wood, the USCG has a conduit "on-the-ground" into DoD training and professional development. This information bridge has already yielded results with the NSF course as well as a regular flow of shipboard CBR training through the Navy CBR Detachment at Fort Leonard Wood.

### **Exercise Coordination**

The NSF facilitates the planning, coordination, execution, and participation of players in response-preparedness exercises to strengthen local, state, federal, and industrial coordination (about six to eight large annual exercises). For years, the focus of these drills, conducted by the NSF coordination center's PREP staff, has been on oil and accidental HAZMAT spills/releases. Today, the focus is shifting to incorporate more CBRN events in these national, interagency exercises.

## Conclusion

Many paradigms have clearly shifted within the NSF and federal response community as a whole. Overall, the NSF Strike Teams have made dramatic leaps forward in adding to their response capabilities, yet despite these advances, there are clearly many hurdles ahead. Within both the NSF and other operational elements of the USCG, the most critical CBRN shortfall is currently in the training arena. As the primary chemical biological training resource for the DOD the USACMLS has the capability of developing programs of instruction for training Team Coast Guard personnel. Over the past two years the Chemical School and the MANSCEN's Directorate of Training Development (DOTD) has worked directly with the NSF to conduct specialized training for NSF personnel. Three courses have been completed to date, including hands-on experience with CBR equipment in both the classroom and lab training environments. For more information on the NSF, please visit our website at www.uscg.mil/hq/nsfcc/nsfweb/.

**About the author:** Lieutenant Commander Branson is the Coast Guard Liaison Officer, Fort Leonard Wood, MO. He has more than 13 years experience in the fields of maritime safety and security.

This article is an update of an article that originally appeared in the January 2003 issue of the **CML**, **Army Chemical Review**. It has been reprinted and updated with permission.

## In the News cont.

## November 25, 2003

CBIAC Newsletter

"The U.S. Department of Homeland Security is proud to announce that the University of Southern California (USC) has been chosen as the first Homeland Security Center of Excellence (HS-Center). The Department anticipates providing the University with \$12 million over the course of the next three years for the study of risk analysis related to the economic consequences of terrorist threats and events."

http://www.dhs.gov/dhspublic/display?content=2387

## NMSU, LANL Tapped To Help Saltech Build Prototype Andrew Webb

**New Mexico Business Weekly** November 25, 2003 "Officials at Albuquerque's SALtech Corp. say arrangements with Los Alamos National Laboratories and New Mexico State University could help them put laser water purification systems on the market by next summer."

http://albuquerque.bizjournals.com/albuquerque/stories/2003/11/24/daily8.html

## **New Nato Chem/Bio Battalion Starts Operations** John D. Banusiewicz

## **American Forces Press Service**

American Forces Information Service December 1, 2003 "A new multinational battalion designed to defend against and respond to attacks by weapons of mass destruction is now operational, NATO officials announced here today...

The unit – called the Chemical, Biological, Radiological and Nuclear Defense battalion – is now at what officials called the 'initial operational capability' level. Full capability is expected in July 2004."

http://www.defenselink.mil/news/Dec2003/n12012003\_200312 011.html

## **Researchers Publish Paper On Botulism Detection System** Ricardo Duran

UC News Wire/ Press Release December 4, 2003 "Researchers at the University of California, Riverside have developed a device that speeds the detection of a virulent strain of botulism neurotoxin from hours or days to minutes, making treatment or vaccination more effective."

http://www.ucnewswire.org/news\_viewer.cfm?story\_PK=3407&

## **Boca Company Patents Anthrax-Killing Treatment** Kathy Bushouse

South Florida Sun-Sentinel December 8, 2003 "The invention was concocted as a defense against an anthrax contamination at the small laboratory in a warehouse off Clint Moore Road.

Two years ago, Custom Biologicals Inc. shared a mail route with American Media Inc., the tabloid publisher evacuated from nearby offices in the Arvida Park of Commerce after its employees received an anthrax-laced letter... Their invention, Cleanthrax, is an additive for typical household disinfectants, boosting the effectiveness of the disinfectant." http://www.sun-sentinel.com/news/local/palmbeach/sfl-panthrax08dec08,0,3817561.story?coll=sfla-news-palm http://www.sun-sentinel.com/

## FDA OKs New Test for Detecting Anthrax

**The Associated Press** December 9, 2003 "The Food and Drug Administration approved a test Tuesday that will speed up the process of determining whether someone has been infected by anthrax.

The Redline Alert test can be performed in about 15 minutes and does not require specially trained personnel or special equipment..."

http://abcnews.go.com/wire/Politics/ap20031209\_2578.html

## Military Medical/NBC Technology

Volume 7, Issue 6

Articles of Interest: Protecting Warfighters JSFDS: Avoiding the Deep, Dark Hole Spore Hunt Sensitive Decontamination CBW Battlespace Recon Breathe In... **Volume 7, Issue 8** Article of Interest: Focus on CBRN

http://www.mmt-kmi.com/

## **National Defense Magazine**

December 2003 Articles of Interest: Chem-Bio Defense Needs Common Standards Chem-Bio Defense Policies Revisited Post-Iraq http://www.nationaldefensemagazine.org/toc.cfm?lssueID=0312



## New JPEO-CBD publication: Chem-Bio Defense Quarterly

The Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) now publishes the Chem-Bio Defense Quarterly magazine, a free acquisition news and information resource distributed throughout Chemical and Biological Defense community. The magazine is comprised of news and feature articles that describe elements of chemical and biological defense in an easily understandable format. Not intended to be a technical manual with

subject specific jargon, it is a publication that Soldiers, Sailors, Airmen, Marines and the civilian reading audience can use to get insight to topics that can sometimes be a "heavy read." Available in both electronic and hardcopy format, it can be viewed on the JPEO-CBD website at http://www.jpeocbd.osd.mil/. To subscribe, visit http://www.jpeocbd.osd.mil/jpeocbd\_subscribe.htm.

## "The CWS Effort" cont.

American aircraft and the agents effective. Noting unstable boundaries and the rapid redeployment of AAF and CWS personnel qualified to handle these weapons to the Pacific Theater, it was recommended that as much chemical munitions as could be located in the American army zone of occupation and those that may be recovered from British and Russians zones be obtained.<sup>5</sup>

LE-100, also known as Agent GA or Tabun, was one of the new Nerve Agents discovered with the fall of Germany. Some 23,000 tons of 250-kg bombs and 6,000 tons of 10.5cm shells filled with LE-100 were discovered. CWS Chief MG William Porter requested 3,000 250-kg bomb and 5,000 10.5-cm shells filled with LE-100 be obtained with the highest priority so that the agent could be utilized for charging 4.2-inch chemical mortar shells for immediate testing.<sup>6</sup> This required the bombs to be punched and drained at Edgewood Arsenal for filling U.S. weapons.

Field evaluation of LE-100 in 4.2-inch mortar rounds at the Suffield Experimental Station, Canada, and in modified M70 (E46) bombs at the Army Chemical Center showed that U.S. chemical weapons were not entirely suitable for employing LE-100. Due to the low volatility of LE-100 and the small size of U.S. bursters, only 10% to 20% of the agent was liberated into an initial vapor/aerosol effect. Additionally, the U.S. seems to have disagreed with both German and British authorities on the potency of LE-100. Germany believed it to have a LCt50 of  $300 - 400 \text{ mg} \cdot \text{min/m3}$ . The British estimated it to be about 100-mg more. The U.S. estimate was 800 mg·min/m3. LE-100 from U.S. weapons was thus considered to have little more than a harassing effect.<sup>7</sup>

In July 1945 the Ordnance Department noted, without endorsement, that German 10.5-cm projectiles could be used in U.S. 105-mm howitzers so long as the rotating bands were turned down, or the howitzers had worn tubes. German 10.5-cm shells were 0.3-inches wider than U.S. 105-mm shells.<sup>8</sup>

Though the United States would not produce its own Nerve Agent weapons until the 1950's, the effort to obtain German chemical weapons to augment the United States arsenal represents the first effort to adopt the Nerve Agents. Fortunately Operation DOWNFALL never materialized. Japan surrendered after two nuclear strikes and the U.S. was not compelled into chemical retaliation. The activities of the CWS through late Spring and early Summer 1945 showed its officers were capable of addressing emergency preparedness and finding unorthodox solutions.

**About the Author:** Mr. Kirby is a CBW technology history scholar and subject matter expert for the United States Army Chemical School Historical Office and Chemical Corps Museum, Fort Leonard Wood, Missouri.

#### Footnotes:

<sup>1</sup> Probably the first expression of a U.S. chemical policy was

by the Secretary of War (New York Times 21 September 1917, p.6).

<sup>2</sup> Memorandum by CPT William J Roberts, CWS, CW Technical Intelligence Officer, Subject: Suspected Use of Gas by the Japanese (HQ, 1st Cav Div, office of the AC of S, G-2, 18 February 1945) provides interviews with witnesses of two accounts where a vomiting agent (possibly Chlorpicrin) was apparently used by an encircled Japanese unit in Manila.

<sup>3</sup> Memorandum by BG Alden H Wait, Assistant Chief, CWS for field operations, Subject: Captured German Gas Filled Bombs and Chemical Agents, dated 30 June 1945.

<sup>4</sup> Memorandum by BG E Montgomery, Air Chemical Officer, Subject: Captured German Gas Filled Bombs (Washington DC: HQ Army Air Forces, 16 June 1945).

<sup>5</sup> Op cited, 3.

<sup>6</sup> Memrandum by MG William N Porter, Chief of Chemical Warfare Service, Subject: Enemy Agent Munitions, LE-100 (Taboon) (Washington, DC: HQ, Army Service Forces, Office of the Chief of Chemical Warfare Service, 29 May 1945).

<sup>7</sup> Chemical Corps Technical Committee, "Classification of Quick-Acting, Nonpersistent Agent GB, as a Substitute Standard Type; Subcommittee Report V" CCTC Item 1890 (Army Chemical Center, MD, 19 May 1948): pp. V4 and V7c.

<sup>8</sup> Letter from LTC D P Gaillard, Assistant Chief of Ordinance, to HQ, ASF, Office, Chief of Chemical Warfare Service dated 9 July 1945.

## CBIAC Mailing Lists – Corrections and Updates Requested!

The CBIAC maintains an email address list to provide the CB Defense and HLS communities with timely announcements and pertinent information from the CBIAC. We are also screening our CBIAC Newsletter mailing list for incomplete entries and outdated organization names, office symbols, locations, etc.

Please check your newsletter mailing label and send an email to update and/or correct our records to cbiac@battelle.org, complete and fax this form to the CBIAC at 410.676.9703, or complete the Interactive form on the CBIAC website.

Thank you!

#### **Bold information is required:**

| Do you want to be included on our email list?<br>Do you want to receive the CBIAC newsletter? | □ Yes<br>□ Yes | □ No<br>□ No |
|---|----------------|--------------|
| Title   |                |              |
| First name  |                |              |
| Last name   |                |              |
| Organization  |                |              |
| Office Symbol   |                |              |
| Street address  |                |              |
| Address line 2  |                |              |
| City  |                |              |
| State/Province  |                |              |
| Zip/Postal code   |                |              |
| Country   |                |              |
| Work Phone  |                |              |
| FAX   |                |              |
| E-mail  |                |              |

# **2004 CBIAC Products**

| Code     | Price   | Title  | Classification  |
|----------|---------|--|---|
| CR-03-09 | \$10.00 | Law Enforcement Officers Guide for Responding to<br>Chemical Terrorist Incidents                             | Unlimited; Unclassified   |
| CR-03-08 | \$10.00 | Medical Aspects of Biologiccal Agents  | Unlimited; Unclassified   |
| CR-03-07 | \$25.00 | WMD Reference CDs  | Unlimited; Unclassified   |
| CR-02-05 | \$25.00 | Chemical Agent Simulants and Associated<br>Technologies  | U.S. Federal Government Agencies Only; Unclassified                                 |
| CR-01-04 | \$45.00 | Joint Service Chemical and Biological Science and<br>Technology Base Program in Decontamination (CD-<br>ROM) | U.S. Government Agencies and their Contractors; Unclassified                        |
| CR-01-03 | \$25.00 | Air Purification Technologies  | U.S. Government Agencies and their Contractors; Unclassified                        |
| CR-00-02 | \$25.00 | Critical Review on Anti-Crop Biological Agents and Associated Technologies                                   | U.S. Federal Government Agencies and their Contractors;<br>Unclassified             |
| CR-00-01 | \$75.00 | CB/Smoke M&S Newsletter Compilation (CD-ROM)   | U.S. Government Agencies and their M&S Contractors;<br>Unclassified                 |
| CR-99-10 | \$60.00 | Wide Area Decontamination: CB Decontamination<br>Technologies Equipment and Projects                         | Unlimited; Unclassified   |
| CR-99-09 | \$20.00 | Determination of Optimum Sorbent Material for<br>Collection and Air Desorption of Chemical Warfare<br>Agents | Unlimited; Unclassified   |
| CR-98-08 | \$25.00 | Demilitarization Technologies for Biological and Toxin<br>Weapons  | U.S. Government Agencies ONLY; Unclassified   |
| CR-98-07 | \$15.00 | Critical Review on the Y2K Millennium Bug: A<br>Chemical and Biological Defense Community<br>Perspective     | Unlimited; Unclassified   |
| CR-98-06 | \$15.00 | The Emergency Responder's Ability to Detect<br>Chemical Agents   | U.S. Government Agencies, their Contractors, and Emergency Responders; Unclassified |
| CR-98-05 | \$25.00 | Critical Review of Surface Sampling Technologies for<br>Volatilizing Liquid Chemical Agents                  | Unlimited; Unclassified   |
| CR-98-04 | \$25.00 | Critical Review of Non-Lethal Grenade Technologies<br>and Lethality Evaluation Criteria                      | Unlimited; Unclassified   |
| CR-96-03 | \$60.00 | Critical Review of Sources of Chemical and Physical<br>Properties Data for Militarily Significant Compounds  | Unlimited; Unclassified   |
| CR-95-02 | \$20.00 | A Critical Review of Sources of Spectral Data for<br>Militarily Significant Compounds                        | Unlimited; Unclassified   |
| CR-95-01 | \$20.00 | A Critical Review of Nuclear, Biological and<br>Chemical Contamination Survivability (NBCCS)                 | Unlimited; Unclassified   |

## Databases, Databooks, Handbooks, and Others

| Code      | Price    | Title  | Classification  |
|-----------|----------|--|---|
| DBS-02-01 | \$125.00 | Chemical Sources Database: Toxicological Values<br>for Catastrophic Release of Toxic Industrial<br>Chemicals (Set of Database (CD-ROM) and<br>Databook)                        | U.S. DoD Agencies Only; Unclassified  |
| DB-02-01  | \$75.00  | Chemical Sources Database: Toxicological Values<br>for Catastrophic Release of Toxic Industrial<br>Chemicals (CD-ROM)  | U.S. DoD Agencies Only; Unclassified  |
| DBK-02-01 | \$75.00  | Chemical Sources Databook: Toxicological Values<br>for Catastrophic Release of Toxic Industrial<br>Chemicals   | U.S. DoD Agencies Only; Unclassified  |
| DBK-99-02 | \$125.00 | Susceptibility of Aircraft Materials to Chemical Warfare Agents (Reprint)  | U.S. Government Agencies and their Contractors; Unclassified                      |
| DB-97-01  | \$60.00  | Physiological and Psychological Effects of the<br>Nuclear, Biological, and Chemical Environment<br>and Sustained Operations on Systems in Combat<br>(P2NBC2) Database (CD-ROM) | U.S. Department of Defense and their Contractors; Unclassified                    |
| DBK-95-01 | \$10.00  | Chemical Defense Materials Databook  | U.S. Department of Defense and their Contractors; EXPORT CONTROLLED; Unclassified |
| HB-04-03  | \$175.00 | BACWORTH Encyclopedia Version 6.2a (CD-ROM)  | U.S. Government Agencies Only; EXPORT CONTROLLED; For Official Use Only           |

# **2004 CBIAC Products**

| HB-00-01     | <del>\$175.00</del> | BACWORTH Encyclopedia Version 5.0 (CD-ROM) (replaced by HB-04-03) | U.S. Government Agencies Only; EXPORT CONTROLLED;<br>For Official Use Only |
|--------------|---------------------|---|--|
| HB-99-03     | \$75.00             | CB Terminology Handbook   | Unlimited; Unclassified  |
| HBS-98-03    | \$200.00            | Mask & Detection Handbooks (Set of 2)                             | Unlimited; Unclassified  |
| HB-95-02     | \$150.00            | Worldwide Chemical Detection Equipment                            | Unlimited; Unclassified  |
|              |                     | Handbook  |  |
| HB-92-01     | \$75.00             | Worldwide NBC Mask Handbook                                       | Unlimited; Unclassified  |
| PR-95-02     | \$49.00             | Proceedings of the CB Medical Treatment                           | Unlimited; Unclassified  |
|              |                     | Symposium: An Exploration of Present Capabilities                 |  |
|              |                     | and Future Requirements for Chemical and                          |  |
|              |                     | Biological Medical Treatment                                      |  |
| SIMKIT-96-01 | \$150.00            | Chemical Warfare Agent Simulation Training Kit                    | Unlimited; Unclassified  |

| State-of-the-Art Reports |               |  |  |  |  |  |  |
|--------------------------|---------------|--|--|--|--|--|--|
| Code                     | Price         | Title  | Classification   |  |  |  |  |
| SOAR-04-11               | \$35.00       | Chemical and Biological Medical Treatment<br>Symposium III (CD-ROM)  | Unlimited; Unclassified  |  |  |  |  |
| SOAR-03-10               | \$20.00       | Best Practices and Guidelines for Mass Personnel Decontamination   | U.S. Government Agencies and their Contractors; EXPORT CONTROLLED; Unclassified                              |  |  |  |  |
| SOAR-03-09               | \$10.00       | Criminal and Epidemiological Investigation<br>Handbook   | Unlimited; Unclassified  |  |  |  |  |
| SOAR-02-08               | \$25.00       | Possible Terrorist Use of Modern Biotechnology<br>Techniques   | U.S. Federal Government Agencies; FOUO   |  |  |  |  |
| SOAR-02-07               | \$25.00       | Joint Science and Technology Chemical and<br>Biological Front End Analysis and Master Plan -<br>Individual Protection (CD-ROM) | U.S. Federal Government Agencies and their Contractors Only;<br>Unclassified                                 |  |  |  |  |
| SOAR-02-06               | \$45.00       | Medical Risk Assessment of the Biological Threat   | U.S. Federal Government Agencies and their Contractors Only;<br>Unclassified                                 |  |  |  |  |
| SOAR-02-05               | \$75.00       | Tools to Minimize the Threat of Intentional<br>Food/Water Contamination  | U.S. Federal Government Agencies and their contractors and state and local government agencies; Unclassified |  |  |  |  |
| SOAR-01-04               | \$15.00       | Weapons of Mass Destruction Level III<br>Antiterrorism Training  | U.S. Federal Government Agencies and their Contractors;<br>Unclassified                                      |  |  |  |  |
| SOAR-01-03               | \$125.00      | Respirator Encumbrance Model   | U.S. Government Agencies and their Contractors; Unclassified   |  |  |  |  |
| SOAR-00-02               | \$95.00       | Weapons of Mass Destruction Force Protection<br>Joint Service Training   | U.S. Federal Government Agencies and their Contractors; State and Local Government Agencies; Unclassified    |  |  |  |  |
| SOAR-00-01               | *Out of Print | Medical NBC Battlebook   | Unlimited; Unclassified  |  |  |  |  |
| SOAR-99-13               | \$95.00       | CB Decontamination Market Survey and Tool  | U.S. Government Agencies and their Contractors; EXPORT CONTROLLED; Unclassified                              |  |  |  |  |
| SOAR-99-12               | \$75.00       | CBR-D Curricular Materials (CD-ROM)  | U.S. Government Agencies and their Contractors; EXPORT CONTROLLED; Unclassified                              |  |  |  |  |
| SOAR-99-11               | \$75.00       | Disaster Preparedness Operation Specialist<br>Curricular Materials (CD-ROM)  | U.S. Government Agencies and their Contractors; EXPORT CONTROLLED; Unclassified                              |  |  |  |  |
| SOAR-99-10               | \$95.00       | Tactical NBC Information Tool (CD-ROM)   | U.S. Government Agencies ONLY; Unclassified  |  |  |  |  |
| SOAR-98-09               | \$75.00       | State-of-the-Art Report on the Technical Approach<br>Options for Indoor Air Modeling   | Unlimited; Unclassified  |  |  |  |  |
| SOAR-98-08               | \$95.00       | CINC NBC Information Tool (CD-ROM)   | U.S. Government Agencies ONLY; Unclassified  |  |  |  |  |
| SOAR-98-07               | \$125.00      | Disaster Preparedness Operation Specialist (DPO)<br>Computer Aided Instruction (CD-ROM)  | U.S. Government Agencies and their Contractors; EXPORT<br>CONTROLLED; Unclassified                           |  |  |  |  |
| SOAR-98-06               | \$125.00      | CBR-D Computer Aided Instruction (CD-ROM)  | U.S. Government Agencies and their Contractors; EXPORT CONTROLLED; Unclassified                              |  |  |  |  |
| SOAR-98-05               | \$75.00       | Assessment of Chemical Detection Equipment for HAZMAT Responders   | U.S. Government Agencies, their Contractors, and Emergency<br>Responders; Unclassified                       |  |  |  |  |
| SOAR-98-04               | \$75.00       | State-of-the-Art Report on the Australia Group<br>Chemicals  | Unlimited; Unclassified  |  |  |  |  |
| SOAR-97-03               | \$95.00       | An Overview of U.S. Chemical and Biological Defensive Equipment  | Unlimited; Unclassified  |  |  |  |  |
| SOAR-95-02               | \$60.00       | State-of-the-Art Report on Biodetection<br>Technologies  | U.S. Department of Defense and their Contractors; EXPORT CONTROLLED; Unclassified                            |  |  |  |  |

\* The Medical NBC Battlebook, USACHPPM Tech Guide 244, had been available on the USACHPPM website in electronic format at http://chppm-www.apgea.army.mil. At the time this newsletter went to press, the Tech Guide had been pulled from their website pending release of an updated, revised edition. The new version will be posted on the USACHPPM website when completed.

# BIAC 2004 User Survey

Please take a moment to complete our survey and fax it to the CBIAC at 410-676-9703 or complete the interactive survey form on our website at http://www.cbiac.apgea.army.mil. Your feedback will help us to improve our service to the CB Defense and Homeland Security communities. Thank you!

## How did you become aware of the CBIAC's

products and services? (Check all that apply)

## Please rate the CBIAC products and services that you have used using the following scale:

5=Excellent, 4=Very Good, 3=Satisfactory, 2=Fair, 1=Poor

| Advertisement D Briefing D Internet  |                       |               | 5=Excellent, 4=Very Good, 3=Satisfactory, 2=Fair, 1=Poor |   |   |   |   |
|--|-----------------------|---------------|--|---|---|---|---|
| Database Search  | □ Conference Display  | Co-worker     |  | 5 | 4 | 3 | 2 |
| □ CBIAC Homepage   | Brochure              | Other         | CBIAC Bibliographic Database                             |   |   |   |   |
| IAC Referral   | □ CBIAC Newsletter    |               | Critical Reviews/  |   |   |   |   |
|  |                       |               | Technology Assessments                                   |   |   |   |   |
| Would you prefer CB  | IAC Basic Products in |               | Newsletters  |   |   |   |   |
| electronic format?   |                       |               | Directories  |   |   |   |   |
| D Yes D No   |                       |               | Databooks  |   |   |   |   |
|  |                       |               | Inquiry and Referral Services                            |   |   |   |   |
| What topics in either existing and/or new categories would you like to see in future CBIAC products? Include any comments on our products and services here. |                       |               | Handbooks  |   |   |   |   |
|  |                       | IAC products? | State-of-the-Art Reports (SOARs)                         |   |   |   |   |
|  |                       |               | Proceedings  |   |   |   |   |
|  |                       |               | Training Aids  |   |   |   |   |
|  |                       |               | Technical Area Tasks (TATs)                              |   |   |   |   |
|  |                       |               | Web site   |   |   |   |   |
| Ontional   |                       |               | http://www.cbiac.apgea.army.mil                          |   |   |   |   |
| Optional   |                       |               |  |   |   |   |   |
| Name:  |                       | Organization: |  |   |   |   |   |
| Work Phone:  |                       | E-mail:       |  |   |   |   |   |
|  |                       |               |  |   |   |   |   |

**CBIAC Aberdeen Proving Ground - Edgewood Area P.O. Box 196** Gunpowder, MD 21010-0196

Non-Profit U.S. Postage Paid Edgewood, MD Permit No. 14

1



Printed on Recycled Paper