



Chemical and Biological Defense

**CBIAC**  
Information Analysis Center

*Newsletter*

Summer 2000

Volume 1 Number 3

A U.S. Department of Defense Information Analysis Center sponsored by the Defense Information Systems Agency, Defense Technical Information Center

## Not Another Plan?!

### The Department of Defense Chemical and Biological Defense Program Performance Plan

By Anna Johnson-Winegar, Ph.D. and David W. Evans

**T**he Department of Defense (DoD) will submit a performance plan for the Chemical and Biological Defense Program (CBDP) to Congress along with its next annual report on the CBDP in 2001. Over the next several months, the various stakeholders in the CBDP will be involved in the preparation of the performance plan. The purpose of this article is to provide an outline for (1) the underlying rationale and purpose for the performance plan, (2) the challenges in preparing a plan, and (3) suggestions for the preparation of the plan.

#### The CBDP Performance Plan: Rationale and Purpose

In 1993 Congress passed the Government Performance and Results Act (GPRA) (Ref. 1). One of the requirements of the GPRA is for agencies to submit an annual performance plan to Congress. Performance plans should provide a complete and clear picture of what an agency intends to accomplish with a given level of resources. At a minimum, the plans must include performance goals and measures, processes and resources required to meet the performance goals, and the means to validate the performance measures. The plans should be organized to be as useful as possible to all relevant Congressional committees, including authorizers, appropriators, and budgeteers (Ref. 2).

The General Accounting Office (GAO) outlined the information needed in the CBDP performance plan in its August 1999 report (Ref. 3). Specifically, the plan should:

- ◆ Establish explicit and outcome-oriented goals linked to warfighters' ability to survive, fight, and win in a CB environment;
- ◆ Identify quantitative or qualitative performance measures that can be used to assess progress toward goal achievement;
- ◆ Describe how performance data would be validated;
- ◆ Describe how [research, development, test and evaluation] activities of participating DOD and non-DOD organizations are coordinated to achieve program goals; and
- ◆ Identify human capital, financial, and resource challenges or external factors that limit the ability of the program to achieve its goals.

The performance plan is intended to provide a management tool that will focus program efforts on *outcomes*, rather than *outputs*.

Table 1 shows performance measures that illustrate the difference between the two terms. Performance measures are to focus on capabilities provided or demonstrated for the warfighter, rather than on the status of program execution. Performance measures provide an operational focus to supplement traditional management measures of cost, schedule, and technical performance.

**Table 1: Performance Measures: Outcomes vs. Outputs**

<b>EXAMPLE 1:</b>	<b>OUTPUT:</b>	Number of training courses taught
	<b>OUTCOME:</b>	Number of students receiving certification
<b>EXAMPLE 2:</b>	<b>OUTPUT:</b>	Number of systems acquired
	<b>OUTCOME:</b>	Percentage of 2 Major Theater War requirement fielded
<b>EXAMPLE 3:</b>	<b>OUTPUT:</b>	Number of vaccine doses procured
	<b>OUTCOME:</b>	Number of forces vaccinated

Those involved in the preparation and implementation of the plan may be asking themselves, "Not another plan?! Aren't we doing enough planning already?" A new plan is required, yet it should not impose significant new reporting burdens. The performance plan will draw on information from the reports and plans already being prepared within the CBDP, including (1) the Modernization Plan, (2) the Research, Development, and Acquisition (RDA) Plan, (3) the Logistics Support Plan, (4) the Joint Warfighting Science and Technology Plan, (5) the Defense Technology Area Plan, and (6) the Annual Report to Congress. In addition, the performance plan will draw on the documents prepared in support of the PPBS, including Defense Planning Guidance, CBDP Program Strategy Guidance, the Program Objectives Memorandum (POM), and the President's Budget. Finally, the performance plan will identify the explicit linkage with overarching DoD guidance identified in the Defense Planning Guidance and the Quadrennial Defense Review, which serves as the strategic plan for the Department.

Even without specific GPRA guidance, the CBDP uses a well-established planning process — the Planning, Programming, and Budgeting System (PPBS), which translates strategic planning documents into programs and activities through which the plan can be accomplished. This reflects a rich tradition of planning that embraces both centralized and decentralized planning (Ref. 4).

See "Performance Plan"  
Continued on page 3



The **Chemical Warfare/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), Mr. Joseph D. Williams**, may be contacted by email at [Joseph.Williams@sbccom.apgea.army.mil](mailto:Joseph.Williams@sbccom.apgea.army.mil) or at the following address:

CDR USA SBCCOM  
Edgewood Chemical Biological Center  
ATTN: AMSSB-RRT-OM (Joe Williams E3330)  
5183 Blackhawk Road  
Aberdeen Proving Ground, MD 21010-5424

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## “Performance Plan”

*Continued from page 1*

CBDP officials at all organizational levels should be able to answer GPRA-related questions regarding mission, goals, objectives, linkage to higher level command, and performance measurement, even if they are not familiar with GPRA terminology.

In March 2000, the CBDP prepared an annual report that established the first step in compliance with the Results Act (Ref. 5). The introduction of this report outlines the mission, vision, values, and goals of the DoD CBDP. These statements provide linkage with the overall mission and vision of the Department of Defense and provide the framework for the development of a performance plan consistent with GPRA principles (Ref. 6). The mission of the CBDP is to provide chemical and biological defense capabilities to allow the military forces of the United States to survive and successfully complete their operational missions. The mission of the CBDP is not to deter adversaries' use of chemical or biological weapons. However, the successful accomplishment of the program mission may have the effect of deterring the use of chemical and biological weapons by devaluing their utility as a tool of war.

### Challenges in Preparing the Plan

There are numerous challenges in preparing a performance plan. As stated in its evaluation of other agencies performance plans, GAO noted that "it may take years to develop a sound set of performance measures" (Ref. 7, p. 23). When a performance plan is submitted as part of next year's annual report, the CBDP will be in full compliance with the GPRA. Full compliance with the GPRA can be defined as the establishment of a *process* to measure performance and progress towards goals. The performance plan will be updated annually and the content of the report (that is, the goals and performance measures) will be revised as needed. In itself, the completion of the performance plan will not guarantee a successful program. However, a performance plan will provide the means to demonstrate continued progress towards the goals of the CBDP.

No single measure in any one area may be adequate, and by itself a single performance measure may be uninformative and possibly misleading. However, when the measures are viewed together over a period of time, the value of the measures as a management tool becomes apparent. Within the CBDP, the performance plan may provide an effective management tool to measure — and hence manage — balance among the various areas. For example, performance measures may show the balance of funding among procurement, advanced development, and science and technology programs, which will help ensure that capabilities are fielded not only for the current force, but that advanced capabilities will be fielded for future forces through the far-term.

The performance plan will include a variety of performance measures. One of the challenges in the development of the performance plan will be identifying an appropriate balance between too many and too few performance measures. With the completion of a performance plan, the CBDP will be better able to address key program and budgeting questions such as "Does

it make sense to field 100% of the new masks this year if only 75% of the new suits are being fielded?" or "Does meeting mask goal early make sense if warning system is not in place?"

Developing performance measures for individual programs will be the focus of the forthcoming performance plan. All programs will be measured to demonstrate that they support operational requirements and provide defense against validated or emerging threats. A key challenge will be to demonstrate the interaction among individual programs and performance measures. Table 2 illustrates potential types of interactions among CB defense programs and performance measures. Defining and validating these interactions will be an ongoing process.

**Table 2: Interaction of Performance Measures**

INTERACTION TYPE	CONCEPTUAL DESCRIPTION	EXAMPLE
Additive	$0.5 + 0.5 = 1$	Mask + Suit
Semi-Additive	$0.5 + 0.5 = 0.75$	Detection/Warning System + Mask
Synergistic	$0.2 + 0.2 = 1$	Mask + Vaccine
Potentialiation	$0 + 0.5 = 1$	Pyridostigmine Bromide Tablets + (Atropine + Diazepam)

Another challenge in preparing the performance plan is the requirement for the validation of performance measures. There are three key aspects of validation. The *first* is the determination of data accuracy. This is the simplest aspect in which data may be verified as accurate by confirmation with program managers or, if necessary, inspections or audits of records. The *second* aspect is the determination of whether the performance measures are the appropriate measures. This is a more complex requirement of data validation. This requires performance measures be assessed to determine whether they actually measure progress towards a goal. Additionally, this aspect of validation will determine whether there are additional or more appropriate performance measures that will supplement or replace existing performance measures. For example, an existing performance measure may indicate the number or courses taught on the medical management in chemical and biological casualties. An assessment of this measure may indicate a better outcome-oriented measure would be the number of students who were certified in these courses, not just the number who attended.

A *third* aspect of data validation is the demonstration of the performance measure through models, simulations, or exercises. This poses some challenges since the effects of chemical or biological agents must usually be simulated. Exercises typically are expensive, labor intensive, and can take years of planning. Also, the process of data validation faces a Catch-22 since the models and simulations that may be used to validate the performance measures may themselves need to be validated.

See “Performance Plan”  
Continued on page 9

## **CBD CONTRACT AWARDS**

By Mary Frances Tracy

### **Support for Federal, Military, NATO, and the Technical Cooperation Program**

Science Applications International Corp.  
San Diego, CA  
\$1,675,000. March 22, 2000  
By Defense Threat Reduction Agency

### **Soft Shelters for Chemical Biological Incidence Response Force (CBIRF)**

TVI Corporation  
Glenn Dale, MD  
\$178,000. March 28, 2000  
By USMC CBIRF

### **Construction Contract for the CBIRF Relocation**

Barclay White/Coakley Williams  
Construction (Joint Venture)  
Gaithersburg, MD  
\$10,615,000. April 5, 2000  
By Engineering Field Activity Chesapeake,  
Naval Facilities Engineering Command,  
Washington, DC

### **Remote Biological Olfactory Sensing**

RDSS Inc.  
59 Marnel Drive  
Severna Park, MD  
\$424,000. April 6, 2000  
By SPAWARSYSCEN, San Diego

### **M18A3 Detector Kit and M30A2 Refill Kit**

Trutech Inc.  
680 Elton Avenue  
Riverhead, NY 11901  
\$158,176. April 12, 2000  
By TACOM

### **Award of M9 Chemical Paper**

Trutech Inc.  
680 Elton Avenue  
Riverhead, NY 11901  
\$1,666,500. April 14, 2000  
By TACOM

### **Neuronal Network Responses to Neuroactive Agents**

University of North Texas  
Research Services  
P.O. Box 305250  
Denton, Texas 76203  
\$429,335. April 25, 2000  
By SPAWARSYSCEN, San Diego

### **Chemical Warfare Protective Suits [Self-contained Toxic Environmental Protective Outfit (STEPO)]**

Versar, Inc.  
Springfield, VA  
\$14,500,000. May 1, 2000  
By U.S. Army Material Command

### **Biodefense Research Contract**

Hadron, Inc.  
Alexandria, VA  
\$3,300,000. May 4, 2000  
By Defense Advanced Research Projects  
Agency

### **Topical Skin Protectant (TSP)**

Manufacturing Development  
McKesson Bioservices  
14665 Rothgeb Drive  
Rockville, MD 20850  
\$732,530. May 11, 2000  
By U.S. Army Medical Research  
Acquisition Activity, Frederick, MD

### **Camouflage Cold Weather Parkas and Camouflage Cold Weather Trousers**

Tennier Industries, Inc.  
Pomona, NY  
\$16,528,241. May 31, 2000  
By Defense Supply Center Philadelphia

### **Camouflage Cold Weather Parkas and Desert Camouflage Cloth and Cut/Make Trim of Parka**

Tennessee Apparel Corp  
Tullahoma, TN  
\$11,732,188. May 31, 2000  
By Defense Supply Center Philadelphia

### **Design and Production of an Organophosphorous Bioscavenger via Protein Engineering of Human Acetylcholinesterase**

Israel Institute for Biological Research  
P.O. Box 19  
70450 Ness Ziona, Israel  
\$596,752. June 1, 2000  
By U.S. Army Medical Research  
Acquisition Activity, Frederick, MD

### **Research and Development on Detection of Chemical Warfare Agents**

Temple University  
3400 North Broad Street  
Philadelphia, PA 19140  
\$1,249,975. June 8, 2000  
By SPAWARSYSCOM, San Diego

### **Training Kit, Nerve Agent Antidote, Mark I**

Meridian Medical Technologies Inc.  
10240 Old Columbia Road  
Columbia, MD 21046  
\$44,240. June 13, 2000  
By Defense Personnel Support Center,  
Philadelphia

### **Integration of the Selective Availability Anti-Spoofing Module (SAASM) into the Joint Standoff Weapon (JSOW) System**

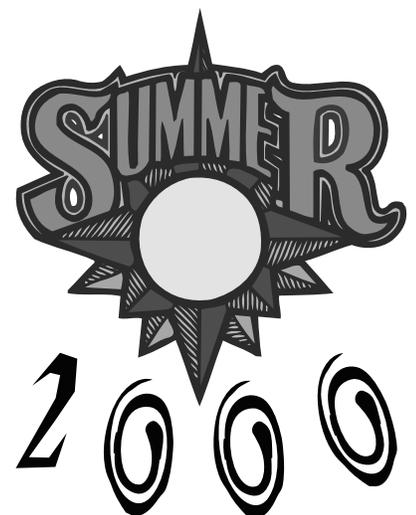
Raytheon Company  
Tucson, AZ  
\$5,069,914. June 23, 2000  
By Naval Air Systems Command, Patuxent  
River, MD

### **Conduct Studies on Low Level Chemical Toxicity, Relevance to Chemical Agent Defense**

Wright State University  
Dayton, OH  
\$5,831,000. June 23, 2000  
By U.S. Army Medical Research  
Acquisition Activity, Frederick, MD

### **Remediation of Various Hazardous Waste Sites within the North Atlantic Division**

Roy F. Weston Inc.  
Manchester, NH  
\$50,000,000. June 23, 2000  
By U.S. Army Corps of Engineers,  
Concord, MA



## CBD IN THE NEWS

By Mary Frances Tracy

### *Chem Weapon Destruction* **Emergency Preparedness News** May 9, 2000

Four chemical weapon stockpile sites are being considered as pilot facilities to test technologies to destroy stockpiled chemical weapons. They are: Anniston Chemical Activity, AL; Blue Grass Chemical Activity, KY; Pine Bluff Chemical Activity, AR; and Pueblo Chemical Depot, CO. Technologies to be considered as alternatives to incineration are chemical neutralization followed by supercritical water oxidation, neutralization and biological treatment.

*USA ahead of schedule in destroying chemical arms*

Gourley, Scott

### **Janes Defence Weekly**

May 17, 2000

The U.S. Army's Program Manager for Chemical Demilitarization (PMCD) has far surpassed the Chemical Weapons Convention's (CWC) milestone of having 1% of the nation's "Category One" chemical weapons destroyed by April 29. The U.S. has reportedly destroyed 15% of the targeted stockpile. This milestone has been accomplished due to the facilities at the Johnston Atoll Chemical Agent Disposal System (JACADS) and the disposal facility at Tooele, UT.

*The Portal Shield Biological Warfare Agent Detection System*

David, Brian

### **Army AL&T**

May-June 2000

Developed in 1996 as an Advanced Concept Technology Demonstration (ACTD), the Portal Shield Biological Warfare Agent Detection System has become the DOD's first automated biological detection system to protect overseas fixed-site facilities such as airfields and ports. The Portal Shield System has a variable number of fully automated biological sensors that are under the command and control of a centralized command-post computer. This network of sensors reduces the false positives and enables the detection of up to eight threat agents simultaneously in less than 25 minutes.

*Adapting the DoD Acquisition Process to the Dynamic Environment of Biological Defense Vaccine Acquisition*

Cain, Eddie, BG; Paul, Richard B.; Prior, Stephen D., M.D.

### **Army AL&T**

May-June 2000

The ultimate goal of the Joint Vaccine Acquisition Program (JVAP) is to field safe and effective biological defense (BD) vaccines to protect U.S. military forces. This is also of major importance to the DOD. To accomplish this goal, the Army established a project management office (PMO) to work closely with the prime systems contractor (PSC) to ensure timely licensing of all promising vaccines by the U.S. Food and Drug Administration (FDA). The prime systems contract approach is the very center of the JVAP, with DynPort Limited Liability Co. (LLC) as the current PSC. DynPort LLC is a joint venture between

DynCorp in Reston, VA, and Porton International in London, UK. DynPort LLC, as the PSC, is responsible for all aspects of developing the assigned BD vaccines.

*France Offers Help in Destruction of Russian Weapons*

<http://my.cnn.com>

May 31, 2000

With grave concern over the fact that chemical and bacteriological weapons are sought out by terrorists, France has offered assistance to Russia for the destruction of chemical and bacteriological weapons. France also offered to assist Russia with the conversion of bacteriological laboratories into medical facilities. A working group between Russia and France has also been proposed to improve ties between French and Russian parliamentarians and to deal with non-proliferation issues as well.

*Chemical Weapons Left by Japanese Troops Found in Nanjing G*

<http://my.cnn.com>

June 21, 2000

In Nanjing, the capital city of the Jiangsu Province in eastern China, more than 17,600 chemical weapons have been discovered. Included in the weapons discovered are ten kinds of toxic gas canisters. Left by Japanese troops during World War II, the Chinese and Japanese governments are presently negotiating on detailed measures to destroy the weapons. The chemical weapons were discovered at a construction site in Xiaguan District along the Yangtze River. The Japanese government sent a special investigation team to deal with the matter and has since clearly accepted the obligation to destroy them.

*Army Offers Computer-Based System To Help Respond To a CBR Incident*

### **Emergency Preparedness News**

June 6, 2000

U.S. Army Soldier and Biological Chemical Command (SBCCOM) is offering a license for the Automated Decision-Aid System for Hazardous Incidents (ADASHI). The ADASHI is a computer-based integrated decision-aid support system that can improve tactical response to a hazardous incident involving chemical, biological or radiological materials. ADASHI integrates functions required to control a hazardous event and automatically monitors most aspects. ADASHI can also be used as an over-the-shoulder system to aid commanders in processing information in a timely manner.

*Pulling down a deadly soviet legacy*

<http://www.msnbc.com/news/407687.asp>

Lewis, Dana

Stepnagorsk, in Kazakhstan, has been abandoned since 1992, but the threat it poses to the world has barely diminished.

Stepnagorsk possesses a plant the size of two football fields and four stories high which experimented with and produced tons of anthrax and other biological weapons on a daily basis. The plant is closed but the complex is still home to live viruses and is a potential target for terrorists seeking destructive weapons.

Entrance to the complex is only allowed when visitors suit up in protective masks, suits and gloves. In order to keep the complex from falling into terrorists hands, the U.S. will raze the entire structure and catalog everything from doors to valves to prevent usable equipment from being sold to countries pursuing bioweapons programs.

## CALENDAR OF EVENTS

The CBIAC highlights conferences, symposia, meetings, exhibitions and workshops of interest to the CBD community both on our website and in every issue of our newsletter. If you would like to have a CBD-related event posted on the CBIAC Calendar of Events, submit the pertinent information via Email to [cbiac@battelle.org](mailto: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

### 2000 MEETINGS

September 9-15, 2000

***COURSE: In-House Medical Management of Chemical and Biological Casualties***

(MCBC) #6H-F26

US Army Medical Research Institute of Chemical Defense (USAMRICD)

Aberdeen Proving Ground, Maryland and

US Army Medical Research Institute of Infectious Diseases (USAMRIID)

Fort Detrick, Maryland

(Advance registration required)

POC: Chemical Casualty Care Division, USAMRICD

Tel: (410) 436-2230

DSN: 584-2230

Fax: (410) 436-3086

Fax DSN: 584-3086

Email: [roger.baxter@amedd.army.mil](mailto:roger.baxter@amedd.army.mil)

URL: <http://ccc.apgea.army.mil>

September 19-21, 2000

***DOD Chemical Biological Advance Planning Briefing for Industry (APBI)***

(Event #037)

Aberdeen Proving Ground-Edgewood Area, Maryland

POC: Kanzada Douglass

Tel: (703) 247-2586

Email: [kdouglass@ndia.org](mailto:kdouglass@ndia.org)

URL: <http://www.ndia.org/>

September 24-27, 2000

***The 3rd International Workshop on BC-Detection***

Stenungsbaden Yacht Club

Stenungsbaden, Sweden

POC: Ms. Gerd Karlsson

Tel: 46-90-10 67 67

Fax: 46-90-10 68 03

September 25-29, 2000

***COURSE: Field Management of Chemical and Biological Casualties***

(FCBC) #6H-F27/322-F27

US Army Medical Research Institute of Chemical Defense (USAMRICD)

Aberdeen Proving Ground-Edgewood Area, Maryland

POC: Chemical Casualty Care Division, USAMRICD

Tel: (410) 436-2230

DSN: 584-2230

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Email: [roger.baxter@amedd.army.mil](mailto:roger.baxter@amedd.army.mil)

URL: <http://ccc.apgea.army.mil>

September 26-28, 2000

***LIVE SATELLITE BROADCAST: Biological Warfare and Terrorism: Medical Issues and Response***

US Army Medical Research Institute for Infectious Diseases (USAMRIID)

Tel: (301) 619-4880

URL: <http://www.biomedtraining.org/>

September 27 - 30, 2000

***5th Asia-Pacific Conference on Disaster Medicine***

Vancouver, British Columbia, Canada

Headquarters: Department of Emergency & Critical Care Medicine, Nippon Medical School

Tel: +81-3-5814-6199

Email: [dprc@interchange.ubc.ca](mailto:dprc@interchange.ubc.ca)

URL: <http://www.safety.ubc.ca/5apcdm/>

September 27-30, 2000

***Weapons of Mass Destruction: The Continuum From Response to Management***

Hilton St. Petersburg

St. Petersburg, Florida

URL: <http://www.va.gov/wmd>

October 2-3, 2000

***Jane's Weapons of Mass Destruction***

Washington, DC

Tel: (703) 683-3700 ext. 295

Fax: (703) 836-0118

Email: [conference@janes.com](mailto:conference@janes.com)

URL: <http://www.janes.com/security/conference/wmd/wmd.html>

October 8-12, 2000

***Remediation of Contaminated Soil***

Munster, Germany

Tel: 49-5192-136400

Email: [expo@munster.de](mailto:expo@munster.de)

URL: [http://munster.de/e2\\_eng/expo/f\\_termin.htm](http://munster.de/e2_eng/expo/f_termin.htm)

October 9-11, 2000

***4th International NBC Defence Symposium***

Royal Military College of Science

Shrivenham, United Kingdom

POC: Andrea Harrison

Tel: 44 1793 785648

Email: [andrea.harrison@rmmcs.cranfield.ac.uk](mailto:andrea.harrison@rmmcs.cranfield.ac.uk)

October 21-27, 2000

***COURSE: In-House Medical Management of Chemical and Biological Casualties***

(MCBC) #6H-F26

(See September 9-15, 2000)

October 23-27, 2000

***Joint Conference on Point Detection for Chemical and Biological Defense***

Williamsburg Hospitality House

Williamsburg, Virginia

POC: Science and Technology Corporation, Meeting Services International

Tel: (757) 766-5858

Email: [meetings@stcnet.com](mailto:meetings@stcnet.com)

URL: <http://www.ljcpd.com/>

November 6-9, 2000

**DTIC 2000**

DoubleTree Hotel Rockville

Rockville, Maryland

POC: Julia Foscue

Tel: (703) 767-8222/DSN 427-8222

Email: jfoscue@dtic.mil

URL: <http://www.dtic.mil/dtic/conferences.html>

November 12-15, 2000

**International Society for Respiratory Protection (ISRP) 10th International Conference: "Respiratory Protection for First Response, Domestic Preparedness and Anti-Terrorism Personnel"**

The Manly Pacific Parkroyal Hotel

Sydney, Australia

POC: Goran Berndtsson

Telephone: 61 2 9910 7500

E-mail: goran@isrp.com.au

POC: Dana Lundmark

Tel: 61 2 9261 5746

E-mail: sydney2K@isrp.com.au

URL: <http://www.llnl.gov/isrp/conf00.html>

November 28-29, 2000

**Second National Symposium on Medical and Public Health Response to Bioterrorism**

Marriott Wardman Park Hotel

Washington, DC

URL: <http://www.hopkins-biodefense.org>

December 5, 6, and 7, 2000

**LIVE SATELLITE BROADCAST: "Medical Response to Chemical Warfare and Terrorism 2000"**

POC: Chemical Casualty Care Division, USAMRICD

Tel: (410) 436-2230

DSN: 584-2230

Fax: (410) 436-3086

Fax DSN: 584 -3086

Email: ccc@apg.amedd.army.mil

URL: <http://ccc.apgea.army.mil>

December 12-13, 2000

**22nd Army Science Conference (ASC) "Accelerating the Pace of the Transformation to the Objective Force."**

Renaissance Harborplace Hotel

Baltimore, MD

Tel: (757) 357-4011

Email: asc2000info@aol.com

URL: <http://www.asc-2000.com/>

**2001 MEETINGS**

June 15-19, 2001

**The Seventh International CBW Protection Symposium and Exhibition of CBW Defence Equipment**

Stockholm City Conference Centre

Norra Latin, Stockholm, Sweden

POC: Kurt Persson (scientific programme)

Tel: +46-90-106 773

Email: persson@ume.foa.se

POC: Asa Lundvall (exhibition)

Tel: +46-90-106 698

Email: lundvall@ume.foa.se

POC: Marianne Olofsson (registration)

Tel: +46-90-106 602

Email: molofsson@ume.foa.se

URL: <http://www.cbwsymp.foa.se/>



The Defense Technical Information Center (DTIC) will host **DTIC 2000**, its Annual Users Meeting and Training Conference, from 6-9 November 2000 at the DoubleTree Hotel Rockville, MD.

This year's theme, "Information Solutions for the 21st Century," reflects DTIC's primary objective: to assist its customer community in meeting tomorrow's challenges by providing the most relevant information in the most appropriate format as quickly as possible.

**DTIC 2000** provides a unique opportunity for attendees to explore in detail new developments not only at DTIC, but throughout the federal technical information network. As in past years, the conference will feature a number of presentations and sessions that focus on the most current issues relative to the research, development and acquisition communities.

These sessions are designed to acquaint the participants with the latest policy and operational developments, and will provide practical details on valuable and diverse domestic and foreign information resources. They will also address security issues, the World Wide Web, copyright laws and the storage and dissemination of electronic documents.

"Information Solutions for the 21st Century" will provide timely, accurate information which will enable users to better meet the challenges of the future. It also promises to provide the tools needed to expand participants' horizons to meet these challenges.

For more information, please contact Ms. Julia Foscue, DTIC 2000 Conference Coordinator, or access the DTIC Homepage on the World Wide Web.

Comm: (703) 767-8236  
 Email: jfoscue@dtic.mil  
 DTIC Homepage: <http://www.dtic.mil/dtic/annualconf>

## NEW CBIAC PRODUCTS

### Susceptibility of Aircraft Materials to Chemical Warfare Agents (Reprint)

**CBIAC Product Number:** DBK-99-02

**Product Category:**

Databook

**Media:** Paperback

**Price:** \$125.00

**Distribution Limitation:** U.S.

Government Agencies and their contractors

**Classification:** Unclassified

**Publication Date:** May 1999

**Availability:** CBIAC



**Description:** This Databook is a complete reprint of the original report, **Susceptibility of Aircraft Materials to Chemical Warfare Agents**, which received a limited issue on July 1, 1988. This Databook contains detailed information on the responses of 59 aircraft materials to the agents GD, VX, and HD. It is being issued as a service to the CB defense community, and contains no information that was not present in the original publication. The CBIAC acknowledges the contributions of the authors of the original report, J.P. Pfau, P.E. Bailey, J.D. Booton, G. Frank, and R.J. Dick. The Battelle Memorial Institute staff, including the Polymer Center, made this reissue possible.

### CB Terminology Handbook

**CBIAC Product Number:** HB-99-03

**Product Category:** Handbook

**Media:** Paperback

**Price:** \$75.00

**Distribution Limitation:**

Distribution Unlimited

**Classification:** Unclassified

**Publication Date:** June 1999

**Availability:** CBIAC



**Description:** This handbook, consisting of over 400 pages, provides identifying properties and characteristics of biological agents, chemical agents, and toxins that are of concern within the chemical and biological defense (CBD) community. This handbook was compiled to provide an overall description and quick reference of the subject matter covered. The biological agent section contains information on the diseases associated with biological agents, classification of the biological agents, routes of infection, untreated mortality, incubation period, infective dose, and treatment for the biological agents. The chemical agent section contains information on the agent characteristics and effects, its chemical formula, chemical structure, Chemical Abstracts Service (CAS) Number, classification, chemical symbol, physical properties, and synonyms. The toxin section describes the toxin, the source of the toxin, its physical and chemical properties, route of entry, rate of action, toxicity, and treatment for the toxin.

### Determination of Optimum Sorbent Material for Collection and Air Desorption of Chemical Warfare Agents

**CBIAC Product Number:** CR-99-09

**Product Category:** Critical Review

**Media:** Paperback

**Price:** \$20.00

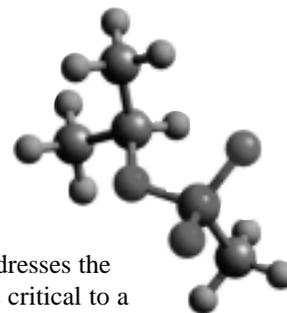
**Distribution Limitation:** Distribution Unlimited

**Classification:** Unclassified

**Publication Date:** January 1999

**Availability:** CBIAC

**Description:** This Critical Review addresses the properties of sorbent materials that are critical to a successful detection, including collecting the chemical warfare agent efficiently from the air and successfully desorbing the agent upon heating for subsequent detection by gas chromatography. This product contains both a detailed review of sorbent technologies and the results of experimental studies on chemical warfare agent sorbents.



### Wide Area Decontamination: CB Decontamination Technologies, Equipment and Projects

**Distribution Limitation:** Unlimited; Unclassified

**CBIAC Product Number:** CR-99-10

**Price:** \$60.00

**Publication Date:** April 1999

**Availability:** CBIAC

**Product Category:** Critical Review

**Media:** Paperback

**Description:** This report provides the reader with the results of a worldwide Chemical and Biological Wide Area Decontamination literature search and market survey along with a detailed assessment of existing equipment and technologies that may meet the needs of both military and domestic preparedness communities. The assessment also includes a detailed examination of the possible benefits of combining the equipment and technologies identified in order to create hardware solutions for immediate implementation.



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## “Performance Plan”

*Continued from page 3*

An additional challenge in the completion of the performance plan will be the identification of the human capital, financial, and resource challenges or external factors that limit the ability of the program to achieve its goals. As provided by public law, the CBDP has direct control over research, development, and acquisition (RDA) funds only. The CBDP does not control the operations and maintenance (O&M) budgets of the Services. O&M funds are used to support training, logistics, and acquisition of some CB defense equipment items, such as all medical chemical defense products. Also, the CBDP does not control the funding for the laboratory infrastructure that supports the research programs of the CBDP. This lack of complete budgetary control thus requires the continuing support and coordination with the military departments to ensure the data is provided in the performance plan.

Finally, the development of qualitative performance measures will present a challenge. The science and technology base program includes basic and applied research efforts which cannot always be measured in a quantitative way. The useful outcomes of basic research cannot be measured directly on an annual basis, because the usefulness of new basic knowledge is inherently too unpredictable. However, that does not mean that there are no meaningful measures of performance of basic research while the research is in progress (Ref. 8). As stated by the National Academies of Science, the most effective means of evaluating federally funded research programs is expert review. Expert review—which includes quality review, relevance review, and benchmarking—should be used to assess both basic research and applied research programs. The CBDP uses an expert review process through an annual Technology Area Review and Assessment. The National Science Foundation (Ref. 9) and the National Institutes of Health (Ref. 10) have established qualitative performance measures for its programs. For the various parts of the CBDP science and technology base programs, performance measures will provide qualitative assessments that describe (1) when they are minimally effective, and (2) when they are successful. Thus an example of a qualitative performance measure for the science and technology base may state that an applied research program is *minimally effective* when it increases the knowledge base about agent effects and defense countermeasures, and that it is *successful* when it demonstrates new defensive countermeasures and transitions them to advanced development.

Doctrine development is another area suitable for qualitative performance measures. For example, doctrine development may be considered minimally effective when all doctrine documents are updated to support current strategy. It may be considered successful when documents identify areas for enhancing joint cooperation among the Services and develop doctrine to incorporate new technologies or concepts to counter emerging threats.

### Preparing the Plan

The key to a successful plan will be the participation by all key stakeholders of the DoD Chemical and Biological Defense Program. An effective performance plan cannot be prepared solely within the Office of the Secretary of Defense, or any one organization. An effective plan will require the contributions,

reviews, and assessments of the Military Departments, the Joint Staff, Defense Agencies, and the Commanders-in-Chief of the Combatant Commands. Each organization will play different and important roles, including the development, review, and validation of (1) mission and goals, (2) program priorities, (3) mission priorities, (4) performance measures, and (5) performance data.

Programs are in place to respond to user needs and shortfalls. Oversight and management of the DoD CB Defense Program continue to improve. Significant progress has been made in implementation of management initiatives required. The Department is on the right track for progress in fielding needed improved CB defense equipment to our forces. The continued support of Congress and implementation of current plans will continue to improve joint force readiness.

### References

1. Public Law 103-62, "Government Performance and Results Act of 1993," The Results Act home page -- <http://freedom.house.gov/results/>.
2. "Expectations for performance plans," Letter from Congress to Director of the Office of Management and Budget, <http://freedom.house.gov/results/raines2.asp>, December 17, 1997.
3. United States General Accounting Office, *Chemical and Biological Defense: Program Planning and Evaluation Should Follow Results Act Framework*, NSIAD 99-159, August 1999.
4. Under Secretary of Defense (Comptroller) Memorandum, "Government Performance and Results Act Implementation," 16 October 1997.
5. *Department of Defense Chemical and Biological Defense Program Annual Report to Congress*, March 2000, <http://www.defenselink.mil/pubs/chembio02012000.pdf>.
6. Anna Johnson-Winegar, PhD, Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense, Statement before the Subcommittee on National Security, Veterans Affairs, and International Affairs of the House Committee on Government Reform, "DoD Chemical and Biological Defense Program: Management And Oversight," 24 May 2000.
7. United States General Accounting Office, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118, June 1996.
8. *Evaluating Federal Research Programs: Research and the Government Performance and Results Act*, Committee on Science, Engineering, and Public Policy, National Academy of Sciences, National Academy of Engineering, Institute of Medicine, 1999.
9. *National Science Foundation, FY 1999 GPR Performance Plan*, March 2000, <http://www.nsf.gov/od/gpra/>.
10. *National Institutes of Health, Government Performance and Results Act, Final FY 2001 GPR Annual Performance Plan, Revised Final FY 2000 GPR Annual Performance Plan, and FY 1999 GPR Annual Performance Report*, <http://www1.od.nih.gov/gpra/>.

### About the Authors

*Dr. Anna Johnson-Winegar is currently the Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense. David Evans is a senior analyst with Analytic Services (ANSER), Inc. and currently chairs the NBC Defense Working Group of the Military Operations Research Society (MORS). Comments on this article are welcome (evansd@anser.org).*

## NEW CBD INFORMATION RESOURCES

By Richard M. Gilman

### Books

Geissler, Erhard and John Ellis, eds. **Biological and Toxin Weapons—Research, Development and Use from the Middle Ages to 1945**. London: Oxford University Press, 1999, pp. 276.

"This interdisciplinary book analyzes the origins of biological warfare planning and preparation up to the end of World War II. In the period between the world wars, growing understanding of the propagation of disease lead to the fear that potential enemies might be developing biological weapons, with several countries ultimately developing major biological warfare programs during World War II. The relevance of these programs to contemporary concerns is addressed and sheds light on arguments for adoption of a verification protocol to strengthen the 1972 Biological and Toxin Weapons Convention."

CB-172277  
ISBN 0-19-829579-0  
Order Department  
Oxford University Press  
2001 Evans Road  
Cary, NC 27513  
Phone: 1-800-451-7556

National Research Council. **Strategies to Protect the Health of Deployed U.S. Forces: Force Protection and Decontamination**. Washington, D.C.: National Academy Press, 1999, pp. 238.

This study was prepared as part of a response to the need for an evaluation of the U.S. military's ability to carry out missions in chemical/biological weapons environments. The U.S. Department of Defense commissioned the National Academy of Sciences to carry out four parallel studies in order to: (1) develop an analytical basis for assessing the risks to deployed troops; (2) review and assess technologies and techniques for detecting and tracking exposures to those risks; (3) review and assess physical protection and decontamination technologies; and (4) to evaluate and analyze "...medical protection protection, health consequences and treatment, and medical record keeping."

The focus of this report is on the physical protection and decontamination of deployed forces. Chapter-length discussions provided include such topics as : "Threat and Risk Assessment;" "Philosophy, Doctrine, And Training for Chemical and Biological Warfare;" "Physical Protection;" "Decontamination;" "Testing and Evaluation;" and "Assessment of Military Capabilities to Provide Emergency Response."

Includes numerous tables, figures and seven appendices.

Full text can be reviewed online at the National Academy Press website.

CB-169696  
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Box 285  
2101 Constitution Ave., N.W.  
Washington, D.C. 20055  
Phone: 1-800-624-6242 or 202-334-3313  
<http://www.nap.edu>

### Documents from the Web

Inglesby, Thomas V. et al. **Plague as a Biological Weapon**. JAMA. Vol. 283, No. 17 (May 3, 2000).

<http://jama.ama-assn.org/issues/v283n17/full/jst90013.html>

"An aerosolized plague weapon could cause fever, cough, chest pain, and hemoptysis with sign consistent with severe pneumonia 1 to 6 days after exposure. Rapid evolution of disease would occur in the 2 to 4 days after symptom onset and would lead to septic shock with high mortality without early treatment. Early treatment and prophylaxis with streptomycin or gentamicin or the tetracycline or fluoroquinolone classes of antimicrobials would be advised." (authors' conclusions).

CB-173411  
American Medical Association  
515 S. State St.  
Chicago, Ill 60610  
(312) 464-2402

Department of Defense. **Chemical and Biological Defense Program—Annual Report to Congress, March 2000**.  
<http://www.nbcprotect.com/new/pdf.htm>

"An (annual) assessment and a description of plans to improve readiness to survive, fight and win in a nuclear, biological and chemical (NBC) contaminated environment. This report contains modernization plan summaries that highlight the (Defense) Department's approach to improve current NBC defense equipment and resolve current shortcomings in the program." Chapters include "DOD Chemical and Biological Defense Program Management and Oversight;" "Non-Medical NBC Warfare and Defense Requirements and R & D Program Status;" "Medical NBC Warfare Defense Requirements and R & D Program Status;" "NBC Defense Logistics Status;" "NBC Defense Readiness and Training;" and "Status of DOD Efforts to Implement the Chemical Weapons Convention."

There are nine annexes. Annexes A through D provide detailed information on NBC defense equipment. Annex E summarizes the funding of the DOD's CBDP. Annex F provides a list of NBC-related websites. Annex G addresses the issue of the use of human subjects in the chemical and biological defense program. Annex H provides the text of congressional language mandating this report.

Includes numerous tables, diagrams, photos and an index. Report is approximately 260 pages long.

See "New CBD Information Resources"

Continued on page 11

## "New CBD Information Resources"

*Continued from page 10*

### Journals

Frazier, Thomas and Drew Richardson, eds. **Food and Agricultural Security: Guarding Against Natural Threats and Terrorist Attacks Affecting Health, National Food Supplies, and Agricultural Economics.** Annals of the New York Academy of Sciences. Vol. 894 (1999), pp. 233.

"Addresses issues concerning the possibility of bioterrorism against agricultural crops and domestic animals. A unique feature of the book is an industry-government dialogue concerning defense of these vulnerable resources. Presents papers at a conference entitled International Conference on Food and Agricultural Security held by the US Department of Agriculture, FBI Scientific Laboratory, the DoD Veterinary Service Activity, the American Veterinary Medical Association, the Louisiana State University, and the National Consortium for Genomic Resources Management."

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Journal of Applied Toxicology. Vol. 19, Supplement 1 (December 1999), pp. 95.

This is a special issue on, "the development of medical countermeasures to botulinum toxins and topical skin protectants against nerve and vesicating agents." The medical countermeasures discussed include "Promising New Approaches for Treatment of Botulinum Intoxication," "Rapid Microplate Assay for Monitoring Botulinum Toxin B Catalytic Activity," "Historical Overview of Topical Skin Protectant Development," "Development of Reactive Topical Skin Protectants Against Sulfur Mustard and Nerve Agents," and "Analysis and Stability of the Candidate Sulfur Mustard Decontaminant S-330."

CB-172215

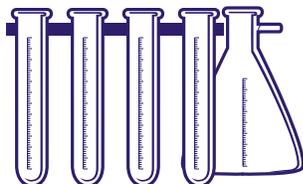
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## THE U.S. ARMY MEDICAL RESEARCH INSTITUTE OF CHEMICAL DEFENSE

### Bioscience Review 2000

By Cindy Kronman

The U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) hosted its twelfth Medical Defense Bioscience Review at the Hunt Valley Marriott from 4-9 June. The conference theme, "Advancing Medical Countermeasures for the Millennium," drew nearly 400 subject matter experts from the Department of Defense, academia, industry and many allied countries. Keynote addresses, platform talks, panel discussions, and poster presentations detailed the latest research on chemical and biological warfare agents and their medical countermeasures.

Col. James S. Little, commander, USAMRICD opened the meeting on 5 June. Next, Maj. Gen. John S. Parker, commander, U.S. Army Medical Materiel Command (USAMRMC), spoke about USAMRMC and its role in shaping the world and the future of the world through its successes. Maj. Gen. Parker offered the following perspective at the conclusion of his address:

"If just what I talked to you about today could be projected over the globe in the next 10-20 years, think what could be. Diseases like malaria and HIV could be suppressed. We could encourage civilian organizations to use our already developed deployable hospitals with worldwide connectivity via teletechnologies to bring more sophisticated medical care to some tough spots on the globe. We will reduce the chemical/biological threat with our detectors, diagnostic equipment, vaccines, pretreatments, treatments, and preventive measures. The mortality of trauma may be reduced. Surely you must feel as I do everyday: the people of MRMC are shaping the globe."

Conference sessions the first day discussed the latest efforts to develop enzyme scavengers to protect against the effects of nerve chemical warfare agents. The second day focused on current research on nerve agent-induced seizures and the development of an advanced anticonvulsant; and the effects of low dose, chronic exposure to chemical warfare agents. Day three began with discussions on vesicating agents (specifically sulfur mustard) and the development of reactive topical skin protectants. The fourth day, was devoted to presentations on medical product development. Chemical casualty care doctrine and current research toward the development of therapies for toxins wrapped up the fifth and last day of the conference. At the traditional conference banquet, Dr. Kelley Ann Brix, assistant chief, Research and Development Officer, Department of Veterans Affairs, gave the keynote address, "Gulf War Illness 10 Years Later, What We Know."

The USAMRICD's bioscience reviews challenge attendees to explore and develop better countermeasures, ensuring that U.S. and allied service members will have the best possible medical protection against the threat of chemical and biological warfare agents.





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