



NDIA

2023

CBRN DEFENSE

CONFERENCE & EXHIBITION

**Biodefense and Pandemic Preparedness
in an Era of Persistent Conflict**

July 24 – 26, 2023 | Baltimore, MD | [NDIA.org/CBRN](https://ndia.org/CBRN)

TABLE OF CONTENTS

SCHEDULE AT A GLANCE	2
WELCOME	3
EVENT INFO	4
WHO WE ARE	5
AGENDA	6
BIOGRAPHIES	13
SPONSORS	15
POSTER SUMMARIES	16
EXHIBITORS	17



NDIA

WHO WE ARE

The National Defense Industrial Association is the trusted leader in defense and national security associations. As a 501(c)(3) corporate and individual membership association, NDIA engages thoughtful and innovative leaders to exchange ideas, information, and capabilities that lead to the development of the best policies, practices, products, and technologies to ensure the safety and security of our nation. NDIA's membership embodies the full spectrum of corporate, government, academic, and individual stakeholders who form a vigorous, responsive, and collaborative community in support of defense and national security. For more than 100 years, NDIA and its predecessor organizations have been at the heart of the mission by dedicating their time, expertise, and energy to ensuring our warfighters have the best training, equipment, and support. For more information, visit NDIA.org

SCHEDULE AT A GLANCE

MONDAY, JULY 24

Registration

Exhibit Hall A
11:00 am – 6:00 pm

Keynote Speakers

Hon. Deborah Rosenblum
Ian Watson
Meeting Room 307- 309
1:40- 3:00 pm

Networking Reception

Exhibit Hall A
5:30 – 6:30 pm

TUESDAY, JULY 25

Networking Breakfast

Exhibit Hall A
8:00 – 9:00 am

General Session

9:00 am - 4:30 pm

Exhibit Hall and Poster Sessions

Exhibit Hall A
8:00 am – 6:30 pm

Networking Lunch

Exhibit Hall A
12:30- 1:30 pm

Networking Reception

Exhibit Hall A
4:45- 5:45 pm

WEDNESDAY, JULY 26

Networking Breakfast

Exhibit Hall A
8:00 – 9:00 am

Exhibit Hall and Poster Sessions

Exhibit Hall A
9:00 am – 2:45 pm

Networking Lunch

Exhibit Hall A
11:30 am – 12:30 pm

WELCOME TO THE 2023 CBRN DEFENSE CONFERENCE & EXHIBITION

Welcome to the 2023 CBRN Defense Conference and Exhibition, where our focus is “Biodefense and Pandemic Preparedness in an Era of Persistent Conflict”. Department of Defense’s new way of doing business is a one-team integrated and informed concept created through collaborating across the Whole of Government with industry. A team of teams knowledge based concept is a top priority for the Department of Defense. Anticipate in-depth discussions on evolving threats, requisite future capabilities, and capacities for response and pandemic preparedness, acquisition reform, and the future of warfighter training and readiness.

I know you are like so many of our fellow Americans. We are tired of hearing about, experiencing, and living through the trauma, life challenges, and losses of COVID 19 and the scare of continued Pandemics and Catastrophic WMD events. Over the past three years of living through this nightmare, well over 1.1 million Americans lost their lives and 30+ Trillion of lost National Treasure associated with COVID 19.

I suspect many of you can immediately recall to your thoughts right now, of someone you knew that died as a result of COVID 19. We would truly think of NO worse conditions that could have nor should have driven us to react and prepare now for the next pandemic and major WMD event coming via what we have experienced together with COVID 19. Even with an excess of 1 million Americans killed and tens of trillions of National Treasure lost, we are still dragging our feet and, in some cases, reversing efforts already made on what needs to be done to prepare NOW and my fear is we are losing each day the momentum and desire to ACT NOW. A great read and what I believe is spot on target with recommendations is in the March 9, 2022 Bipartisan Commission on Biological Defense Report. The Commission recently issued their 2.0 version of the report in a public forum in their DC office and continues to provide an online status tracker of the actions taken and more importantly NOT TAKEN.

In fact, since January 21, 2021, when the Biden Admin started its first day announcement with National Security Memorandum #1 and their 199-page National Strategy for COVID 19 Response and Pandemic Preparedness, there have been numerous Strategies and Assessments released that document the threats and extensive listings of recommendations (many of them repeated from one report to the next) of what should be done to address those gaps. Even I through the National Defense Industry Association Defense News and the NCT CBNW magazines have published extensively on the same. These articles, reports, assessments, and strategies are not only at the U.S. Federal level, both the European Union and NATO have published similar. The President of the United States and the Chairman Joint Chiefs of Staff have called this an Inflection Point in a Decisive Decade. We either chose to ACT NOW to win the coming next war or accept that we will lose, and in my personal words, lose greater lives and treasure and in fact our way of life as we know it if we chose not to ACT NOW.

Accordingly, leadership is fully committed to the ethos of a learning organization and thus the acceleration and adaptation of lessons, not just observations, but learned from our shared experience with COVID over the last three years and the processes to improve readiness and achieve modernization goals, ultimately changing the future fight and enabling our warfighters to dominate and win. In fact, we have proven this last year we are resilient, adaptable, and must accelerate acquisition and contracting processes so that all current and future threats can be quickly defeated. Likewise, we must adapt our current training methods by incorporating current capabilities and future technologies to enhance the lethality, protection, and survivability of our combat systems. In the end, these efforts will assure our warfighters’ domination in the future fight. In support of these efforts, the 2023 CBRN Defense Conference and Exhibition has a multifaceted and diverse agenda. For example, you will hear about leadership’s approach to responding and now preparing for pandemics and implementing necessary acquisition reforms, CBRN defense requirements in the context of current and future threats and vulnerabilities, emerging national and international CBRN defense technologies, medical and non-medical countermeasure solutions, advanced development and manufacturing needs, and promising research and development opportunities from our interagency partners. You will hear about what we are doing NOW to address current and future challenges.

This is another exciting year for the one-team CBRN defense community. By defining challenges and delivering solutions and not just admiring the challenges, we continue to shape and improve our products and capabilities against threats while adapting training methods and facilities with a steadfast leadership commitment to win. Hosted by the NDIA CBRN Defense Division and the Chemical Biological Defense Acquisition Initiatives Forum, this Conference will also feature attendance from the Combatant Commands, Services, select Other Federal Agencies, the Joint Program Executive Office for Chemical, Biological, Radiological, and Nuclear Defense, and select Industry Leaders.

We thank the exhibitors and sponsors of this event for having provided the support necessary to create a quality experience for all participants. We appreciate their partnership and urge you to learn more about their organizations’ capabilities. Please enjoy the 2023 CBRN Defense Conference and Exhibition and come with your questions, suggestions, and innovative ideas, and make time to check out the exhibition hall and poster sessions. I look forward to speaking with you.

William E. King IV

Brigadier General, USA (Ret)
CBRN Defense Division Chair, NDIA

EVENT INFORMATION

LOCATION

Baltimore Convention Center
1 West Pratt Street
Baltimore, MD 21201

ATTIRE

Civilian: Business
Military: Uniform of the Day

SURVEY AND PARTICIPANT LIST

You will receive via email a survey and list of participants (name and organization) after the conference. Please complete the survey to make our event even more successful in the future.

EVENT CONTACT

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PLANNING COMMITTEE

BG William King, USA (Ret)

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Solutions and
Training, Noble

COL Tamar Main, USA (Ret)

Senior Manager, Chemical
& Biological Technologies
Support, ARServices

Charles Janney

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Vice Chair, NDIA
SciTech Services, Inc.

COL Ronald Fizer, USA (Ret)

LMI

COL Armando "Mandy" Lopez, Jr., USA (Ret)

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CSM Kenneth Graham, USA (Ret)

ANSER

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REAL-TIME CROWD-SOURCED Q&A



Sli.do is an audience engagement platform that allows user to crowd-source top questions to drive meaningful conversations and increase crowd participation. Participants can up-cote the questions they would most like to hear discussed. Simply tap the thumbs-up button to up-vote a question. Top questions are displayed for the moderator and speaker to answer. Ask your question in the general session by going to slid.do!

Event code: CBRN2023

MOBILE APP

Download the CBRN Mobile app for the most up-to-date information by visiting [NDIA.org/CDRN2023/Mobile-App](https://www.ndia.org/CDRN2023/Mobile-App) or scanning the QR code.



GET INVOLVED

Learn more about NDIA's Divisions and how to join one at [NDIA.org/Divisions](https://www.ndia.org/Divisions)



LEADERSHIP

BG William King, USA (Ret)
 CBRN Defense Division Chair

Charles Janney
 CBRN Defense Division Vice Chair

CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN) DEFENSE

WHO WE ARE

The Chemical, Biological, Radiological, and Nuclear (CBRN) Defense Division promotes the exchange of information – technical and operational – related to defenses against weapons of mass destruction between the Department of Defense and other government agencies, industry, and academia. To do so, the Division addresses various functional areas: defensive measures, chemical weapons demilitarization, treaty compliance, industrial base issues, and domestic preparedness.

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AGENDA

MONDAY, JULY 24

11:00 am – 5:00 pm

REGISTRATION
EXHIBIT HALL A

Sponsored By: 

11:00 am – 5:00 pm

EXHIBITOR SET-UP
EXHIBIT HALL A

1:30 – 1:40 pm

WELCOME & OPENING REMARKS
MEETING ROOM 307-309

BG William King, USA (Ret)
Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
CBRN Division Chair, NDIA



WOMEN IN DEFENSE **2023 National Conference**

Tools and Ideas for Asymmetric Advantage

DON'T MISS WID'S PREMIER ANNUAL EVENT!

Join NDIA's Women In Defense for the 2023 WID National Conference as we convene to discuss *Tools and Ideas for Asymmetric Advantage*.

The nation's leading women and men in defense will gather to share ideas on how to maximize professional opportunities and collaborate to deliver our warfighters decisive competitive advantage across the spectrum of conflict in all domains. Senior leaders and young professionals from industry and government will participate in panels offering suggestions, advice and sharing experiences. Attendees will network and hone their knowledge, skills, and abilities during smaller breakout sessions.

September 26 | Arlington, VA
Renaissance Arlington Capital View Hotel

Register Today at WomenInDefense.net/NC

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NDIA

1:40 – 3:00 pm

**CHEMICAL AND BIOLOGICAL DEFENSE PROGRAM PIVOT UPDATE
AND FUTURE EFFORTS**

MEETING ROOM 307-309

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.

CBRN Division Chair, NDIA

*Moderator***The Hon. Deborah Rosenblum**

Assistant Secretary of Defense for Nuclear, Chemical, and Biological Programs

Ian Watson

Deputy Assistant Secretary of Defense for Chemical and Biological Defense

3:00 – 3:15 pm

CLOSING REMARKS

MEETING ROOM 307-309

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.

CBRN Division Chair, NDIA

3:30 – 5:15 pm

**IMPLEMENTING THE NATIONAL DEFENSE STRATEGY
DISCUSSION (INVITE ONLY)**

CHARLES STREET VIP SUITE

5:30 – 6:30 pm

OPENING RECEPTION

EXHIBIT HALL A

Sponsored By: **Booz | Allen | Hamilton****TUESDAY, JULY 25**

8:00 – 6:30 pm

REGISTRATION

EXHIBIT HALL A

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8:00 – 9:00 am

NETWORKING BREAKFAST

EXHIBIT HALL A

8:00 am – 6:30 pm

EXHIBIT HALL AND POSTER SESSIONS OPEN

EXHIBIT HALL A

9:00 – 9:15 am

OPENING REMARKS

EXHIBIT HALL A

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.

CBRN Division Chair, NDIA

9:15 – 10:00 am

HEALTH OF INDUSTRIAL BASE

EXHIBIT HALL A

The Hon. David L. Norquist

President & CEO, National Defense Industrial Association

10:00 – 10:45 am

INDUSTRY PERSPECTIVE ON INNOVATING IN THE CURRENT CONDITIONS

EXHIBIT HALL A

COL Ron Fizer, USA (Ret)

Fellow and Principal Analyst, LMI
Moderator

Tom Noble

Co-founder & CEO, Noble

Doug Wagoner

President & CEO, LMI

Amir Genosar

President & CEO, Aktiv Pharma Group

David Gagliano

Senior Vice President, Booz Allen Hamilton Digital Transformation

10:45 – 11:15 am

NETWORKING BREAK: EXHIBIT HALL & POSTER SESSION OPEN

EXHIBIT HALL A

11:15 – 12:15 pm

IMPLEMENTING THE DOD CWMD STRATEGY

EXHIBIT HALL A

Richard Johnson

Deputy Assistant Secretary of Defense for Nuclear and Countering Weapons of Mass Destruction Policy

12:15 – 12:30 pm

THE HONORARY WILLIAM C. BAUGH CBRN DEFENSE EXCELLENCE AWARD

EXHIBIT HALL A

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
CBRN Division Chair, NDIA

Amoretta Hoeber

President & Owner, AMH Consulting
Awardee

12:30 – 1:30 pm

NETWORKING LUNCH

EXHIBIT HALL A

1:30 – 2:10 pm

AUTOMATING THE FUTURE CBRN BATTLEFIELD

MEETING ROOM 307-309

Mike Bailey, SES

Senior Executive, Director, The U.S. Army Combat Capabilities Development Command Chemical Biological Center

2:10 – 3:10 pm

READINESS VS MODERNIZATION IN A DYNAMIC ENVIRONMENT: WARFIGHTER PANEL

MEETING ROOM 307-309

COL Thamar Main, USA (Ret)

Senior Manager, Chemical & Biological Technologies Support, ARServices

*Moderator***CAPT Mark Scheckelhoff, United States Public Health Service Commissioned Corps.**

Director Biodefense Enterprise, Countering Weapons of Mass Destruction, U.S. Department of Homeland Security

COL Scott Gould, USA

Deputy Director, Joint Requirements Office for CBRN Defense

3:10 – 3:40 pm

**NETWORKING BREAK:
EXHIBIT HALL & POSTER SESSION OPEN**

EXHIBIT HALL A

3:40 – 4:40 pm

THE RIGHT WAY TO DO INTERAGENCY COLLABORATION

EXHIBIT HALL A

COL Jay Reckard, USA (Ret)

President, Technical Solutions and Training, Noble

*Moderator***Kelly Johnston**

Program Manager for Biothreat Characterization, Science and Technology Directorate,

U.S. Department of Homeland Security

Lindsay Longobardi

Deputy Joint Project Lead, Enabling Biotechnologies, Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense

Dr. Helen Cui

Senior Director, National Nuclear Security Administration, Bioassurance Program

4:40 – 4:45 pm

CLOSING REMARKS

EXHIBIT HALL A

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.

CBRN Division Chair, NDIA

4:45 – 5:45 pm

RECEPTION & POSTER REVIEW SESSION

EXHIBIT HALL A

Sponsored By:



9:15 am – 5:00 pm

REGISTRATION

EXHIBIT HALL A

Sponsored By: 

9:15 am – 2:40 pm

EXHIBIT HALL AND POSTER SESSIONS OPEN

EXHIBIT HALL A

9:15 – 10:15 am

NETWORKING BREAKFAST

EXHIBIT HALL A

10:15 – 10:30 am

OPENING REMARKS

MEETING ROOM 307-309

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
CBRN Division Chair, NDIA

10:30 – 11:15 am

S&T CHALLENGES AND PRIORITIES TO ADDRESS EMERGING THREATS

MEETING ROOM 307-309

COL Thamar Main, USA (Ret)

Senior Manager, Chemical & Biological Technologies Support, ARServices
Moderator

COL Chris Grice, USA

Acting Director, Joint Science and Technology Office for Chemical and Biological Defense Program, Joint Science and Technology Office (JSTO)

Dr. Kerri Dugan

Office Director, Biological technologies Office, Defense Advanced Research Project Agency

Dr. Dan Wolfe

Branch Chief, Biomedical Advanced Research and Development Chemical, Biological, Radiological, Nuclear Vaccines

11:15 – 11:30 am

JOSEPH D. WIENAND AWARD

MEETING ROOM 307-309

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
Award Presenter

Alena Calm

Biologist, U.S. Army Combat Capabilities Development Command Chemical Biological Center
Awardee

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11:30 am – 12:30 pm

NETWORKING LUNCH

EXHIBIT HALL A

12:30 – 1:30 pm

A NEW APPROACH TO MEDICAL COUNTERMEASURES

EXHIBIT HALL A

COL Ron Fizer, USA (Ret)Fellow and Principal Analyst, LMI
*Moderator***Dr. Kevin Wingerd**

Medical Programs Director, Office of the Deputy Assistant Secretary of Defense for Chemical and Biological Defense

COL Matthew Clark, USA

Joint Project Manager, Chemical biological, Radiological, and Nuclear Medical (JPM CBRN Medical, Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defense)

Dr. Dave Hone

Chief Scientist, Joint Science and Technology Office for Chemical and Biological Defense

1:30 – 2:10 pm

**RAPID ACQUISITION TO SUPPORT THE ENHANCE
CBRN READINESS AND BIODEFENSE**

EXHIBIT HALL A

BG William King, USA (Ret)Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
*Moderator***Darryl Colvin**

Joint Program Executive Officer for Chemical, Biological, Radiological and Nuclear Defense

Kalpesh Patel

Director, U.S. Department of Homeland Security

Dr. Jason Roos

Deputy Assistant Secretary, Director, Health and Human Services Coordination Operations and Response Element, Administration for Strategic Preparedness and Response

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2:10 – 2:40 pm

**NETWORKING BREAK:
EXHIBIT HALL & POSTER SESSION OPEN**
EXHIBIT HALL A

2:40 – 3:30 pm

UNENCUMBERING THE WARFIGHTER (DETECTION & PROTECTION)

MEETING ROOM 307-309

COL Jay Reckard, USA (Ret)

President, Technical Solutions and Training, Noble
Moderator

Dr. Chuck Bass

Chief Protection & Hazard Mitigation Division, CB Technologies Department, Defense Threat Reduction Agency (DTRA)

Dr. Rich Schoske

Chief, Diagnostic & Detection, Defense Threat Reduction Agency (DTRA)

COL Robert Carter, USA

Joint Project Manager, Sensors, Chemical, Biological, Radiological, & Nuclear (CBRN)

Dr. Kristen O'Connor

Office of the Deputy Assistant Secretary of Defense for Chemical and Biological Defense

3:30 – 4:00 pm

CLOSING REMARKS

MEETING ROOM 307-309

BG William King, USA (Ret)

Principal/Director and Senior Fellow, Booz Allen Hamilton, Inc.
CBRN Division Chair, NDIA

The NDIA has a policy of strict compliance with federal and state antitrust laws. The antitrust laws prohibit competitors from engaging in actions that could result in an unreasonable restraint of trade. Consequently, NDIA members must avoid discussing certain topics when they are together at formal association membership, board, committee, and other meetings and in informal contacts with other industry members: prices, fees, rates, profit margins, or other terms or conditions of sale (including allowances, credit terms, and warranties); allocation of markets or customers or division of territories; or refusals to deal with or boycotts of suppliers, customers or other third parties, or topics that may lead participants not to deal with a particular supplier, customer or third party.



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KEYNOTE SPEAKERS BIOGRAPHIES



THE HON. DEBORAH ROSENBLUM

*Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs
Performing the Duties of Assistant Secretary of Defense for Industrial Base Policy,
Office of the Under Secretary of Defense for Acquisition and Sustainment*

The Hon. Deborah G. Rosenblum currently serves as the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs ASD (NCB). In this capacity, she is the principle advisor to the Secretary, Deputy Secretary and Under Secretary of Defense for Acquisition and Sustainment (A&S) on nuclear energy, nuclear weapons and chemical biological defense.

Prior to her position as Assistant Secretary of Defense, she was the Executive Vice President at the Nuclear Threat Initiative (NTI). She was part of NTI's executive leadership team and helped to oversee the organization's operations, development and programs with an annual operating budget of \$15-20 million.

At NTI, Rosenblum led the successful development of Connecting Organizations for Regional Disease Surveillance (CORDS) as an independent, self-sustaining global network of regional disease surveillance groups. She serves on the board of CORDS, where she promotes good governance in her role as finance chair. Rosenblum also helps manage NTI's work on security issues related to China and traveled there regularly to meet with government officials and non-governmental organizations. In addition, she leads NTI's Middle Eastern partnerships, with a focus primarily in the Levant region, where she has traveled regularly for programmatic work as well as speaking engagements on behalf of NTI. Rosenblum has served on the board of the Herbert Scoville Jr. Peace Fellowship since 2012. From 2017 to 2018, Rosenblum served as an N Square fellow

and focused on driving innovation in the nuclear field. She currently serves as an advisor to the fellowship program.

Rosenblum was vice president of The Cohen Group, an international consulting firm, for seven years. Rosenblum served for 12 years in senior positions with the U.S. Department of Defense, in the areas of homeland defense, peacekeeping operations and support, nuclear forces, and counter-proliferation policy. While at the DoD, Rosenblum represented the U.S. as a negotiator with the Democratic People's Republic of Korea on multi-year bilateral negotiations around its nuclear program. Rosenblum holds a master's degree from Columbia University's School of International and Public Affairs and is a Phi Beta Kappa graduate with a bachelor's degree from Middlebury College.

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AWARD WINNER BIOGRAPHIES



The Honorary William C. Baugh CBRN Defense Excellence Award Winner **AMORETTA HOEBER**

President & Owner
AMH Consulting

Amoretta Hoerber is an expert in national security and has worked to enhance the defense of our country her entire career. Appointed by President Reagan as the Deputy Under Secretary of the Army following appointments as Deputy Assistant Secretary of the Army (R&D) and Principal Deputy Assistant Secretary of the Army (RDA), Amie worked during both Reagan terms to strengthen America's national defense. She oversaw all Army research and development budgets, technical developments and 41 Army laboratories. Managing the Army's R&D staff, Hoerber also led Pentagon efforts to protect our troops from nuclear, chemical, and biological weapons and oversaw the Army portion of the Star Wars ballistic missile defense research program. During both Reagan Administrations she was a primary Administration spokesperson on Department of Defense policies and programs for the public, the media, and Congress, including appearances on Sixty Minutes, the Today Show, MacNeil-Lehrer Report, and Good Morning America. As a member of the President's Surrogate Group, Hoerber represented the Administration in speaking engagements, particularly to hostile audiences, on the defense buildup and particular defense programs.

Prior to serving in the Pentagon, Hoerber was a leading national defense expert at System Planning Corporation, the Rand Corporation, Analytic Services, Inc., and the Strategic Studies Center of SRI International. She has authored several books on nuclear, chemical, and biological warfare and defense strategy. Following her Pentagon appointment, Hoerber was employed at TRW Inc., developing strategic plans for the company's pursuit of business with the Army and handling external relations for the TRW subsidiary managing the DOE's Civilian Radioactive Waste Management System (Yucca Mountain). During this time she was also appointed by President George H.W. Bush to be U.S. Representative to the Joint Commission on the Environment of the United States and Panama during his Administration. She worked closely with our international partners on environmental cleanup of the Panama Canal.

In 1992, Hoerber founded AMH Consulting, a woman-owned small business that advises the Federal government and private industry on national security, technology, defense-related environmental cleanup, and related national security Federal Government matters. Work has included participating in a wide variety of proposals, projects, studies, management

reviews, market and budget analyses, and business development for numerous private industry clients.

Hoerber has also been a member of the Board of Directors of Versar, Inc., and of the Board of Advisors of Constant Associates, Inc., and was Chairman of the Board of EAI Corporation and of Hinz Consulting. She is a current member of the Board of Directors of Sumaria Systems LLC. She also served on the Board of the House of Ruth Maryland for more than a decade and was a founder of the Chemical, Biological, Nuclear and Explosive (CBRNE) Industry Group and a co-founder of CLONE, an organization that focuses on mentoring young women in the defense business, both uniformed and civilian. Hoerber is active in Maryland politics and was the Republican nominee for Congress in Maryland's Sixth Congressional District in 2016 and 2018. She is now a Commissioner on the Montgomery County Board of Elections, appointed by Governor Larry Hogan and reappointed by Governor Wes Moore. Hoerber is also an artist – specializing in glassblowing and acrylic abstract painting (see her website www.amiehoeberart.net). Her art has been in several juried shows, and she donates occasional pieces to both charity and political auctions.



The Joseph D. Wienand NDIA CBRN Division Stem Excellence Award Winner **ALENA CALM**

Biologist, U.S. Army Combat Capabilities Development Command Chemical Biological Center

U.S. Army Biologist
Alena Calm has a 15-year career with the Chemical Biological

Center at Aberdeen Proving Ground. She holds an MS in Biotechnology with a concentration in Biodefense from JHU. She has accumulated more than 20 years of laboratory research experience to include a proficiency in a clinical setting. Her research experience is well versed in the fields of microbiology, immunology, and aquaculture. She is accomplished in algal

culturing techniques, recombinant protein production and purification, cell culture, basic molecular biology and a host of analytical biochemistry tools and assays. During her tenure as an army scientist, Calm has supported an array of projects. Recently she decided to expand her skillset making her proficient in the specialization of culturing techniques. She ran two successful programs in which she grew isolated, characterized, and tested magnetic nanoparticles from the fastidious *M. gryphiswaldense*. In the last

three years Calm helped establish a new capability in aquaculture with a facility that is equipped to grow and maintain cultures of microalgae up to the 100 Liter scale in a photo bioreactor. Calm fills her spare time supporting STEM outreach programs, and volunteering for the Discovery Center at Waters Edge along with coaching three DoD First Lego teams, coupled with mentoring high school and undergrad students.

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MONDAY RECEPTION SPONSOR

CWMD requires a multi-disciplinary/multi-client effort across all Services, OSD, Defense Agencies, Combatant Commands, the IC, the Interagency, international organizations, and partner nations. Booz Allen is a large business with current technical expertise, capabilities, and capacities to integrate and synchronize the CWMD policy, doctrine, planning, intelligence, strategy, exercises, operations, and assisting building partner capabilities and capacities globally. We have demonstrated expertise providing qualified WMD analysts to support intelligence, operations, plans, and exercises, and developing rapid prototypes and sustainable IT solutions. We pride ourselves in working closely with the government, fostering a fully integrated team approach. Major CWMD clients include:

- Department of Defense/OSD/DTRA/SOCOM/USFK/
All Geographic CCMDs
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- Intelligence Community
- Department of Homeland Security
- Department of State
- Department of Transportation
- Environmental Protection Agency
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CDC/FDA/HCORE
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- Department of Agriculture
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TUESDAY RECEPTION SPONSOR

The CBRNE Industry Group (CBRNE IG) is a non-profit association composed of 130 companies, not-for-profit organizations, and consultants who support national and international CBRNE defense activities. CBRNE IG member organizations are actively involved in CBRNE programs that include the destruction of WMDs around the world. CBRNE IG was formed to provide a voice from the industrial base that is heard in both the military, civil, and in Congress.

Members engage monthly with Industry peers and with decision-makers from across the U.S. Federal Departments and Agencies that have a CBRNE Role and Responsibility, Police Forces, First Responders, and Law Makers. Representatives from these organizations speak during our monthly meetings and provide both perspective and an understanding of current and future programs of importance to their agencies. These meetings provide a forum for members to engage with their customers and advance the development of CBRNE defense capabilities. Become a Member Today!

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POSTER SUMMARIES

BRAID Biology-Informed Machine Learning for Wearables and Biometric Data Analysis

Dr. Adam Curry

Applied Research Associates, Inc.

Using principles from physics-informed machine learning, we have developed "BRAID", a Biology-Informed Machine Learning toolset, to develop models that adhere to biological principles and are interpretable, personalized, and resilient to factors outside of training datasets.

A Single Post-Exposure Treatment of the Zwitterionic Oxime (RS194B) Rapidly Protects Macaques Against Lethal Inhaled and Oral Exposure to Nerve Agents and Insecticides

Dr. Yvonne Rosenberg

PlantVax

Post treatments have been developed to protect military and civilian personnel against lethal inhaled OP nerve agents and oral insecticides in macaques. A new neutral zwitterionic RS194B oxime developed at UCSD efficiently crosses the BBB and is capable of rapidly reactivating both circulating RBC-AChE and BChE with dramatic reversal of advanced classic clinical OP symptoms in macaques. A single IM post-exposure treatment is effective in protecting against both lethal inhalation and oral OP exposures to sarin vapor and insecticides. RS194b is currently the most efficacious oxime in the world.

Analytical and Operational Challenges to CBRN-Sensor Integration with Unmanned Platforms

Dr. Pauline Leary

Noble

This paper considers the analytical and operational challenges of CBRN sensor integrations with unmanned systems. These challenges must be considered when designing integrated systems capable of meeting the evolving global threats faced by the military.

Collective Protection Conex (CPC)

Capt Felecia Stagers, USAF

Air Force

Here we explore the advantages of the "Collective Protection Conex (CPC) prototype." The CPC provides semi-hardened protection from chemical and biological (CB) agents in a CBRN contaminated environment by using positive pressure technology. Tent solutions are available and have been disseminated to several Areas of Responsibilities (AORs) across the DoD. While these shelters provide CB protection, the disadvantage is they require field assembly ranging from two hours to eight hours and they do not provide protection from shrapnel. The CPC setup is a plug and play capability that can be setup within 15 minutes. This allows users to completely focus on the mission rather than equipment setup.

Juxtopia Imhotep Band (JiBand): AI Wearable Hand-Activity System to Autonomously Measure CBRN Psychomotor Performance

Dr. Jayfus Doswell

Juxtopia

Operators require an empirically researched and approved protocol required to administer effective CBRN skills in austere and extreme environments. The AI enabled JiBand autonomously e-instructs, and e-assist, and e-evaluates hand-activity to determine CBRN skill proficiency

Autonomous Equipment Decontamination, Prototyping & Experimentation Project

Matthew Brown

The U.S. Army Combat Capabilities Development Command, Chemical Biological Center

The Autonomous Equipment Decontamination project is a collaborative effort to develop a capability that will reduce the time, logistics, and personnel required to conduct contamination mitigation of chemical and biological hazards across the multi-domain battlefield. The project is

demonstrating a proof of concept for how robotics, autonomy, and other evolving technologies can help revolutionize the way our Warfighters conduct contamination mitigation. It will also demonstrate the feasibility of the concept and provide combat developers an opportunity to refine future requirements.

Extending Established Chemical Warfare Agent Monitoring Methods to Emerging Priority Compounds Using Thermal Desorption Gas Chromatography-Mass Spectrometry

Kenneth Hellstern

Markes International Ltd.

Thermal desorption sorbent tubes (DAAMS) have been widely used for sampling and pre-concentrating airborne chemical warfare agents prior to analysis. This technology is typically deployed to monitor for G Agents, mustard gases, and VX. In this poster we investigate extending these protocols to emerging priority compounds, using Fentanyl as an example.

Towards Field Optimised, Near-Real Time, Continuous Monitoring of Trace-Level Chemical Warfare Agents in Air

Helen Martin

Markes International Ltd.

Continuous monitoring of airborne chemical warfare agents requires instrumentation that can pre-concentrate trace levels for detection at relevant exposure limits, yet many of these technologies require services or deliveries that make their deployment in remote, mobile or covert locations challenging or impossible. In this poster we present a tandem trap thermal desorption instrument optimised for continuous near-real time monitoring, with no gaps in sample collection, with a focus on the balance between operational and analytical requirements for field deployment.

EXHIBIT HALL HOURS

MONDAY, JULY 24

5:30 – 6:30 pm

TUESDAY, JULY 25

8:00 am – 5:45 pm

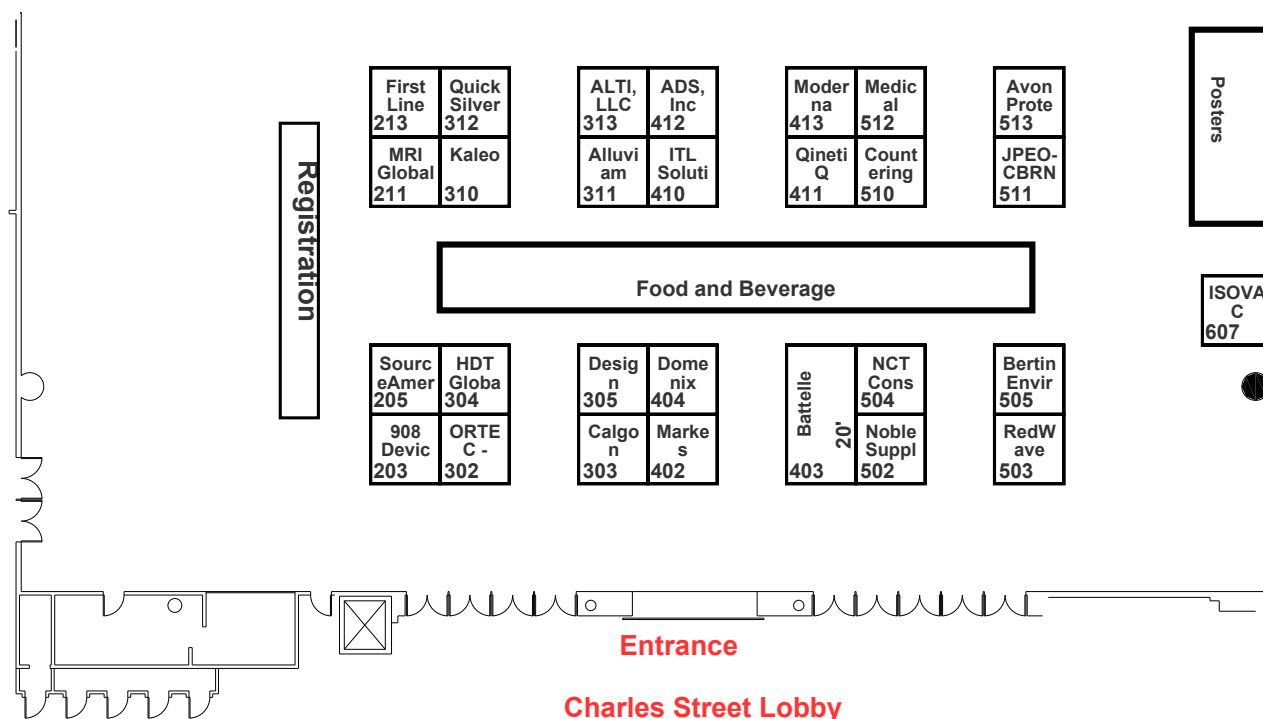
WEDNESDAY, JULY 26

9:00 am – 2:40 pm

EXHIBITORS BY COMPANY

908 Devices	203	ITL Solutions	410
ADS	412	JPEO-CBRND	511
Alluviam	311	Kaleo	310
ALTI, LLC	313	Markes International, Inc.	402
Avon Protection Systems, Inc	513	Medical CBRN Defense Consortium (MCDC)	512
Battelle	403	Moderna	413
Betin Environics	505	MRI Global	211
Calgon Carbon Corporation	303	NCT Consultants.	504
Counering Weapons of Mass Destruction (CWMD)	510	Noble Supply and Logistics	502
Design West Technologies	305	ORETC- AMETEK	302
Domenix	404	QinetiQ, Inc	411
First Line Technology	213	QuickSilver Analytics, Inc	312
HDT Global	304	RedWave Technology	503
ISOVAC Products, LLC	607	SourceAmerica	205

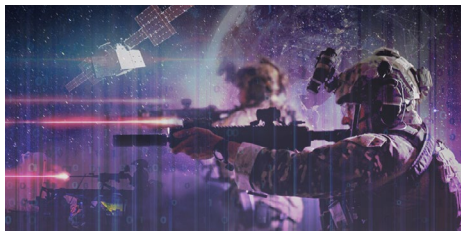
EXHIBIT HALL MAP





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October 31 – November 2, 2023* | Monterey, CA



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August 28 – 30, 2023 | Washington, DC



26TH ANNUAL SYSTEMS & MISSION ENGINEERING CONFERENCE

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I/ITSEC 2023

November 27 – December 1, 2023 | Orlando, FL



2023 UNDERSEA WARFARE FALL CONFERENCE

September 18 – 20*, 2023 | Groton, CT



34TH ANNUAL NDIA SO/LIC SYMPOSIUM

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