



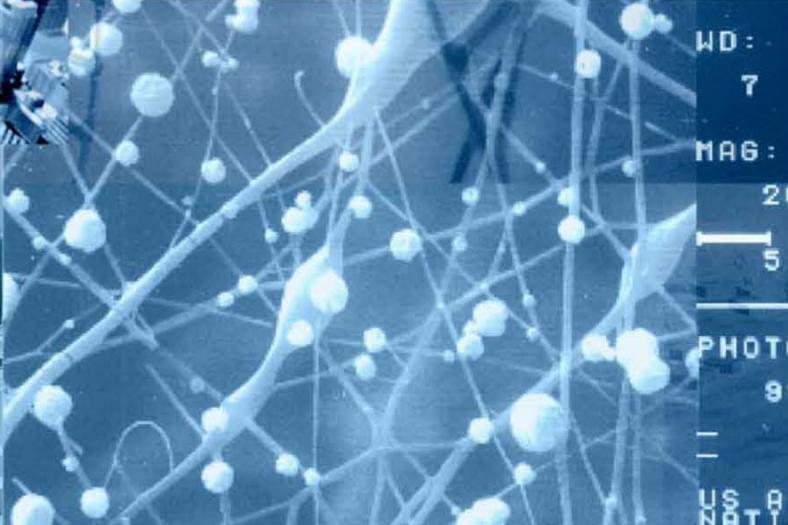
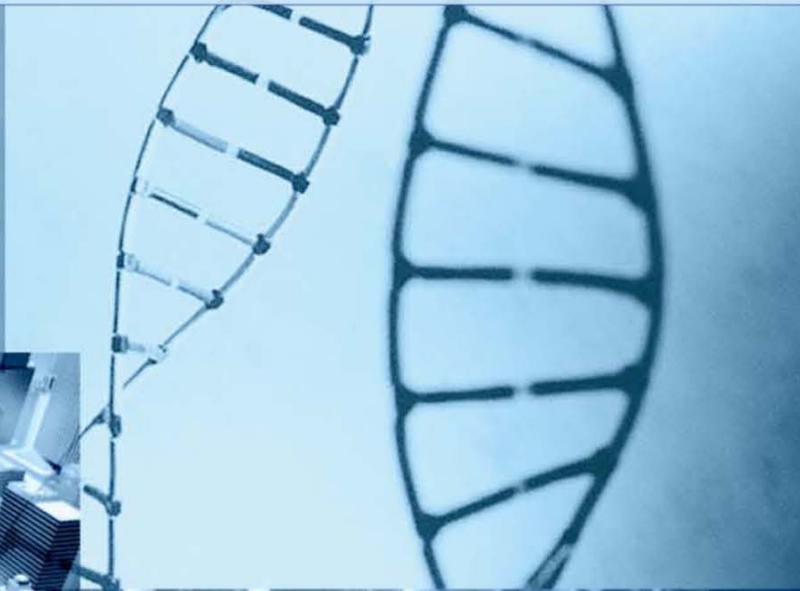
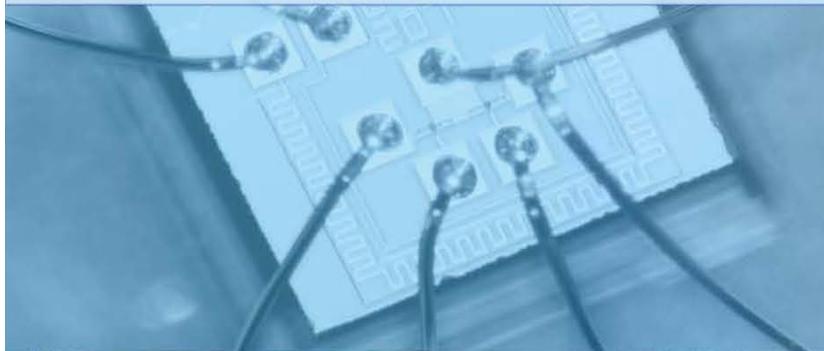
# 2007 Chemical Biological Information Systems (CBIS) Conference & Exhibition

Supported by:

Joint Project Manager Information Systems (JPM IS)  
And Joint Science & Technology Office (JSTO)



January 8 - 11, 2007 ~ Austin, TX  
Renaissance Austin Hotel  
Event #7320



**Conference Announcement:** Chemical and Biological Information Systems (CBIS 2007) Conference, hosted by National Defense Industrial Association and Supported by The Joint Science & Technology Office, Joint Project Manager Information Systems and the JPEO-CBD at the Renaissance Austin Hotel, in Austin, Texas on January 8 - 11 2007. This unclassified conference will include discussions in the areas of innovative technologies, concepts, and applications that can be applied to current and future Chemical and Biological Information Systems.

The continuing proliferation of chemical and biological weapons and associated capabilities has broadened the range of scenarios in which potential use of these weapons against U.S. Forces is possible. The challenge to government, academia, and industry is to deliver revolutionary science and technology results that will protect the warfighter from the effects of chemical and biological weapons. To meet these challenges, participation by industry, academia, government and international personnel is encouraged.

**Conference Overview and Objectives:** As evolutionary, or “enhancement” technologies and incremental scientific advances are not achieving many of the needed advances in warfighting and defense capabilities, this conference is intended to foster creative “out of the box” thinking. Further, the objective of this conference is to provide a global forum for the exchange of information, ideas, and methodologies to eliminate chemical and biological threats to the warfighter. We are seeking revolutionary science and technology which will result in demonstrable success improving Chemical and Biological Information Systems.

### **Monday, January 8, 2007**

Noon – 4:30PM	Exhibitor and Poster Move-in
3:00PM – 6:30PM	Registration
5:00PM – 6:30PM	Exhibits open (Light Reception)

### **Tuesday, January 9, 2007**

#### **PLENARY SESSION CHAIR: Mr. Charles Fromer, Conference Chair, Joint Science and Technology Office, Chem-Bio Defense Programs**

7:00AM – 8:00AM	Continental Breakfast and Onsite Registration
8:00AM – 8:15AM	Welcome and Introduction – Mr. Charles Fromer, Conference Chair, Joint Science and Technology Office, Chem-Bio Defense Programs
8:15AM – 8:45AM	Keynote – COL Ben Hagar, USA, Deputy Director, Joint Science and Technology Office, Defense Threat Reduction Agency
8:45AM – 9:15AM	Keynote – Mr. Doug Bryce, Deputy, Joint Program Executive Office, Chemical and Biological Defense
9:15AM – 9:45AM	Keynote – Mr. Jean Reed, Special Assistant to the Secretary of Defense for Chemical and Biological Defense Programs
9:45AM – 10:30AM	BREAK (Exhibit Area)
10:30AM – 11:00AM	Future programs: JPEO Overview
11:00AM – 11:30AM	Joint Project Manager Information Systems: Program Overview
11:30AM – 1:00PM	Lunch (Exhibit Hall Closed for lunch)
1:00PM – 1:35PM	Joint Effects Model: Program Overview and Status
1:35PM – 2:10PM	Joint Operational Effects Federation: Program Status
2:10PM – 2:45PM	Joint Warning and Reporting Network: Program Overview and Status
2:45PM – 3:30PM	Joint Project Manager Information Systems: Integration Status

3:30PM – 4:00PM BREAK (Exhibit Area)

4:00PM – 4:15PM Threat Agent Science Capability Area Overview

4:15PM – 4:30PM Information Systems Science & Technology (IS S&T) Capability Area Overview

4:30PM – 5:30PM IS S&T Thrust Areas: Overview

5:30PM – 7:00PM Reception – Exhibit Area (Cash bar & Light Reception)

**Wednesday, January 10, 2007**

8:00AM – 8:30AM Continental Breakfast and Registration

8:30AM – 8:45AM Session Chairs–Administrative Remarks

8:45AM **BREAKOUT SESSIONS BEGIN**

**Hazard and Environmental Modeling – Trinity Room A & B**

**Session Chair: Mr. Rick Fry, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. Todd H. Pierce, SAIC	DTRA Weapon-on-Target Chem-Bio Warfare Facilities Source Model
9:15AM – 9:45AM	Professor Theo G. Theofanous, University of California, Santa Barbara	The Physics of Aerobreakup: Viscous and Viscoelastic Liquids
9:45AM – 10:15AM	Dr. Ashok J. Gadgil, LBNL	Cfd Simulation of Mixed Convection Flows in an Atrium: Comparison of Predictions with Experiments

**Data Assimilation and Tactical Applications – Pecos Room**

**Session Chair: Dr. John Hannan, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Mr. Robert I. Sykes, L3–Titan	Source Estimation using Sensor Data and Reverse Transport
9:15AM – 9:45AM	Dr Veronica Rapley, DSTL	Chem-Bio Source Term Estimation
9:45AM – 10:15AM	Mr. Luwi Oluwole, Aerodyne Research, Inc.	SCIPUFF Adjoint Model for Release Source Location from Observational Data

**Battle Management – Sabine Room**

**Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
8:45AM – 9:15AM	Mr. Ric Jones, DTRA	IWMDT
9:15AM – 9:45AM	Mr. Jim Reilly, AFRL	Next Generation Chem Bio Battle Management System–Integrated Information Management System (IIMS)
9:45AM – 10:15AM	Mr. Kevin Grottle, ENSCO, Inc	CBRN Operations Support: Automated Command and Control enabled Sensor Monitoring for Mitigation and Response

**Data and Decision Support Tools – San Marcos Room****Session Chairs: Mr. Eric Lowenstein & Ms. Jessica Miller, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. Don A. Lloyd, Institute for Defense Analyses	IDA Report on the Modeling & Simulation Roadmap for JSTO- Chem-Bio Data
9:15AM – 9:45AM	Mr. Eric J. Lowenstein, Joint S&T Office for CB Defense	Chem-Bio Data Backbone
9:45AM – 10:15AM	Mr. Scott D. Kothenbeutel, Battelle	Chem-Bio Common Knowledge Base within the GIG

**Medical Modeling – San Antonio Room****Session Chair: Ms. Angel Fitzgerald, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. William M. Tepfenhart, Monmouth University	Use of a Markov Chain Model for Epidemics
9:15AM – 9:45AM	Dr. Oliver Lanning, Defence Science and Technology Laboratory	Modeling Medical and Operational Effects of CBRN Usage
9:45AM – 10:15AM	Dr. Gene E. McClellan, Applied Research Associates, Inc.	Transition of NBC CREST Human Response and Casualty Estimation Technology to JPM-IS

10:15AM – 11:00AM BREAK in Exhibit Area

**Hazard and Environmental Modeling – Trinity Room A & B****Session Chair: Mr. Rick Fry, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Dr. Todd H. Pierce, SAIC	DTRA Industrial Facilities Source Model
11:30AM – Noon	Dr. Steven R. Hanna, Hanna Consultants	Estimating Emissions of Toxic Industrial Chemicals (TICs) Released as a Result of Accidents or Sabotage

**Data Assimilation and Tactical Applications – Pecos Room****Session Chair: Dr. John Hannan, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Ms. Priya Sreedharan, LBNL	Robust Sensor Networks using Imperfect Sensor Data for Real- Time Detection of Toxic Releases
11:30AM – Noon	Mr. George Bieberbach, NCAR	Application of Advanced Numerical Weather Prediction Techniques for Improving CBR Source Characterization, within a Flexible Simulation and Evaluation Development Environment

**Battle Management – Sabine Room****Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
11:00AM – 11:30AM	Dr. Jiacun Wang, Monmouth University	Incident Command Systems Resource-Constrained Workflow Modeling and its Application to Military Command and Control Decisions
11:30AM – Noon	Mr. Thomas Aylesworth, Ricciardi Technologies, Inc.	JWARN Component Interface Device (JCID) Software-Based Sensor System

**Data and Decision Support Tools – San Marcos Room****Session Chairs: Mr. Eric Lowenstein & Ms. Jessica Miller, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Mr. Gaylen W. Drape, ENSCO, Inc.	A Web-Based Knowledge Exploitation Toolset for the CBDP
11:30AM – Noon	Mr. Mallikarjun Shankar, Ph.D. Oak Ridge National Laboratory	Harmonizing CBIS Systems and Schemas for Seamless Operational Support

**Medical Modeling – San Antonio Room****Session Chair: Ms. Angel Fitzgerald, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Dr. William J. Welsh, University of Medicine & Dentistry of New Jersey Robert Wood Johnson Medical School	Shape Signatures: Next-generation Drug Discovery Tool
11:30 AM – Noon	Dr. Gene E. McClellan, Applied Research Associates, Inc.	Medical Modeling of Particle Size Effects for Inhalation Hazards

Noon–1:00PM

Lunch (On Your Own)

**Hazard and Environmental Modeling – Trinity Room A & B****Session Chairs: Mr. Rick Fry & CDR Stephanie Hamilton, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Dr. Bernd Leitl, University of Hamburg	Wind Tunnel Modeling In Support of The Validation of Les- based Flow and Dispersion Simulations
1:30PM – 2:00PM	Dr. MiYoung Lee	Detailed 3D CFD Model of The University Hamburg Wind Tunnel for Inlet Boundary Conditions
2:00PM – 2:30PM	Mr. Michael J. Brown, LANL	Computationally Fast 3D Wind and Pressure Solvers for Buildings in Cities

**Major Defense Acquisition Programs – Pecos Room****Session Chair: Mr. William Zimmerman, NSWC Dahlgren**

Time	Author	Title
1:00PM – 1:30PM	TBD	MDAP
1:30PM – 2:00PM	Dr. Oliver Lanning, Defence Science and Technology Laboratory	Use of a Synthetic Environment to Support Acquisition
2:00PM – 2:30PM	Mr. Chris J. Gaughan, Edgewood Chemical Biological Center	Chem-Bio System Military Worth Assessment Toolkit

**Battle Management – Sabine Room****Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
1:00PM – 1:30PM	Dr. Richard N. Czerwinski, MIT Lincoln Laboratory	Sensor Alert Verification for Incident Operational Response (SAVIOR)
1:30PM – 2:00PM	Dr. Jack E. Fulton Jr. , NSWC Crane Division	Aspects of Detection and Identification of Chem-Bio Hazards in a Sensor Network Environment
2:00PM – 2:30PM	Dr. Jay S. Huebner, University of North Florida	Rapid Response Sensor Networking for Multiple Applications

**Decision Support Tools – San Marcos Room****Session Chair: Ms. Jessica Miller, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Dr. LorRaine Duffy, JPM IS	Next Generation Tactical Situation Assessment Technology (TSAT)
1:30PM – 2:00PM	Christopher J. Gaughan, Edgewood Chemical Biological Center	Application of Swarm Network Models to the Efficient and Secure Distribution of Chemical and Biological Sensor Data
2:00 PM – 2:30 PM	Dr. Jerome J. Braun, MIT Lincoln Laboratory	Multi-Purpose Machine-Intelligence-based Information Fusion (FLASH)

**Medical Systems – San Antonio Room****Session Chair: Dr. Rashid Chotani, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Dr. Jaideep Ray, Sandia National Laboratories	A Bayesian Approach for Estimating Outbreak Characteristics from Patient Data
1:30PM – 2:00PM	Dr. Ashok Gadgil, LBNL	Collective Protection from Outdoor Toxic Plumes by Sheltering-in-place Indoors: What Factors Matter Most in Effective Protection
2:00PM – 2:30PM	Dr. Rashid Chotani, JSTO	Infectious Disease Analysis Capability (IDAC)

2:30 PM – 3:30 PM      BREAK–Last Opportunity to view Exhibits and Posters

**Hazard and Environmental Modeling – Trinity Room A & B****Session Chairs: Mr. Rick Fry & CDR Stephanie Hamilton, JSTO**

Time	Author	Title
3:30PM – 4:00PM	Dr. Thomas B. Harris, SAIC	MicroSWIFT/SPRAY: A Tool for Modeling Wind Fields and the Dispersion of WMD Agents over Complex Terrain and in Urban Environments
4:00PM – 4:30PM	Dr. Donald A. Burrows, ITT	A Fast-Running, High Quality, Transport and Dispersion System for Urban Areas
4:30PM – 5:00PM	Dr. John Hannan, JSTO	An Inter-comparison of Diagnostic Urban Wind Flow Models based on the Röckle Methodology using the Joint Urban 2003 Field Data
5:00PM – 5:30PM	Mr. Ian Griffiths, DSTL	Urban Dispersion and Data Handling in JEM

**Major Defense Acquisition Programs – Pecos Room**  
**Session Chair: Mr. William Zimmerman, NSWC Dahlgren**

Time	Author	Title
3:30PM – 4:00PM	Mr. Russell Williams, JPM NBC Contamination Avoidance	Unit Mission Model for Chemical and Biological Defense Materiel Testing
4:00PM – 4:30PM	Mr. Michael Parham, US Army Edgewood Chemical Biological Center	The Air Purification Evaluation Tool (Apet), a Decision Support Tool for Air Purification Technology Trade Studies.
4:30PM – 5:00PM	Mr. Chris J. Gaughan, Edgewood Chemical Biological Center	Chem-Bio Simulation Suite Maturation/Transition
5:00PM – 5:30PM	Mr. Steven S. Streetman, ENSCO, Inc.	A Comprehensive Methodology for Evaluating the Effectiveness of CBRN Protection Systems

**Battle Management – Sabine Room**  
**Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
3:30PM – 4:00PM	Mr. John T. Gray, Naval Surface Warfare Center, Dahlgren Division	Inter-LAN Socket Connection Manager (ILSCM)
4:00PM – 4:30PM	Dr. Dave Swanson, ARL Penn State University	JCID Compliant Thin Server for Sensors
4:30PM – 5:00PM	Mr. Chris Wasser, Northrop Grumman	Using a Programmable Software Defined Radio for Sensor Management
5:00PM – 5:30PM	Mr. Eric C. Hoenes, BAE Systems	Small, Low Power, Wmd Sensor Network With Satcom Reach Back Capability

**Data and Decision Support Tools – San Marcos Room**  
**Session Chairs: Ms. Jessica Miller & Mr. Eric Lowenstein, JSTO**

Time	Author	Title
3:30PM – 4:00PM	Dr. Gerald R. Larocque, MIT Lincoln Laboratory	Decision Support using Mission Simulation and Modeling Tools
4:00PM – 4:30PM	Mr. Roshan Rammohan, University of New Mexico	Classical versus Evolutionary Multi-Objective Optimization Methods for Optimal Funding Allocations to Mitigate Chemical and Biological Attacks
4:30PM – 5:00PM	Mr. Jeffrey S. Steinman, Ph.D, WarpIV Technologies, Inc.	A Proposed Open Standard Architecture for Modeling and Simulation (OSAMS)
5:00PM – 5:30PM	Mr. James L. Ramsey, Sandia National Laboratories	BROOM: An Integrated Data Management and Analysis System for Chemical and Biological Restoration

**Medical Systems – San Antonio Room**  
**Session Chair: Dr. Rashid Chotani, JSTO**

Time	Author	Title
3:30PM – 4:00PM	Mr. Farrukh (Ferg) Husain, Black & Veatch International	Electronic Integrated Disease Surveillance System (EIDSS)
4:00PM – 5:00PM	Dr. Carl Curling, IDA	Attributes of Human Response Modeling

6:30PM – 8:00PM      CBIS Annual Banquet–Guest Speaker: TBD — Exhibitors are encouraged to attend.

**Thursday, January 11, 2007**

8:00AM – 8:30AM Continental Breakfast and Registration

8:30AM – 8:45AM Administrative Remarks

**Hazard and Environmental Modeling – Trinity Room A & B****Session Chairs: Mr. Rick Fry & CDR Stephanie Hamilton, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. Steven R. Hanna, Hanna Consultants	Comparison of Observed, MM5 and WRF Model-Simulated and HPAC-Assumed Boundary Layer Meteorological Variables for Five Days during the IHOP Field Experiment
9:15AM – 9:45AM	Dr. Nathan Platt, IDA	Evaluations of URBAN HPAC Configurations with Joint Urban 2003 Field Trials
9:45AM – 10:15AM	Dr. James Heagy, IDA	Joint Effects Model Urban IPT

**Data Assimilation and Tactical Applications – Pecos Room****Session Chair: Dr. John Hannan, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. Martyn D. Bull, RiskAWare	Sensor Placement Algorithm for Rapid Theatre Assessment (SPARTA)
9:15AM – 9:45AM	Dr. Michael D. Sohn, LBNL	Optimal Networks for Probabilistic Siting of Bio-Samplers in Buildings
9:45AM – 10:15AM	Mr. Michael J. Smith, ITT	SLOTS: The Development of a Genetic Algorithm – based Sensor Location Optimization Tool

**Battle Management – Sabine Room****Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
8:45AM – 9:15AM	Mr. Donald W. Macfarlane, US Army Edgewood Chemical Biological Center	Understanding the Operational Environment is Key to Fielding Valuable Systems–Lessons Learned from CASPOD
9:15AM – 9:45AM	Mr. Javad Sedehi, ITT Corp	No Body Cares – A Case for Integrated Base Force Protection
9:45AM – 10:15AM	Mr. Keith Kunz, BAE Systems	Unattended Early Warning, Intelligence Data Collection and Bomb Damage Assessment Related To Chemical Warfare Agent And Toxic Industrial Chemicals

**Data and Decision Support Tools – San Marcos Room****Session Chair: Ms. Jessica Miller, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Mr. Frank Gilfeather, Ph. D University of New Mexico	Chem-Bio – Multivariate Investment Decision Support Tool–MIDST
9:15AM – 9:45AM	Dr. William Ogden, Computing Research Laboratory New Mexico State Univ.	Understanding DTRA S&T Investment strategies
9:45AM – 10:15AM	Ms. Shan Xia, University of New Mexico	“A Modular Architecture for Multivariate Investment Decision Support”

**Threat Agent Science – San Antonio Room**  
**Session Chair: Dr. Alison Director-Myska, JSTO**

Time	Author	Title
8:45AM – 9:15AM	Dr. Douglas Burns, ENSCO, Inc.	Computational Chemistry: Example Applications of a Critically Important Tool in Threat Agent Science
9:15AM – 9:45AM	Dr. George R. Famini, DHS Chemical Security Analysis Center	An Introduction to the DHS Chemical Security Analysis Center
9:45AM – 10:15AM	Mr. Joseph Chipuk, Signature Science, LLC	Computational Chemistry Techniques Applied to Chemical Warfare Agents (CWA) to support Chemical Analysis, Detection and Threat Assessment Programs

10:15AM – 11:00AM BREAK

**Hazard and Environmental Modeling – Trinity Room A & B**  
**Session Chair: CDR Stephanie Hamilton, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Dr. Steven R. Hanna, Hanna Consultants	JEM IV&V – Evaluations of JEM with Field Observations
11:30AM – Noon	Mr. Jeffery T. McQueen, NOAA/NWS/NCEP/EMC	An Overview of The NOAA National Centers for Environmental Prediction (NCEP) Meteorological Model Products and Their Application for Atmospheric Transport and Dispersion Studies

**Data Assimilation and Tactical Applications – Pecos Room**  
**Session Chair: Dr. John Hannan, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Mr. Oliver Lanning, DSTL	Fusion of Sensor and Model Data
11:30AM – Noon	Dr. Tarunraj Singh, University of Buffalo	Data Assimilation for Puff Model-based Chem-Bio Dispersion

**Battle Management – Sabine Room**  
**Session Chair: Mr. William Ginley, ECBC**

Time	Author	Title
11:00AM – 11:30AM	Ms. Cassandra Shigley, Northrop Grumman	Information Assurance Implications for Unattended Sensors
11:30AM – Noon	Mr. Paul Thomas, DSTL	NATO CBRN CIS

**Data and Decision Support Tools – San Marcos Room**  
**Session Chair: Ms. Jessica Miller, JSTO**

Time	Author	Title
11:00AM – 11:30AM	Dr. Heidi Ammerlahn, Sandia National Laboratories	Decision Aids for CBRN Investment Planning & Analysis
11:30AM – Noon	Mr. Michael O. Kierzewski, US Army RDECOM, ECBC	Chem-Bio Virtual Prototyping Benefit and Feasibility

**Threat Agent Science – San Antonio Room**  
**Session Chair: Dr. Alison Director-Myska, JSTO**

Time	Author	Title
11:00AM –11:30AM	Mr. Michael Henley, Air Force Research Lab/ MLQL	Atmospheric Chemistry of Toxic Industrial Chemicals
11:30 AM – Noon	Dr. Douglas Burns, ENSCO, Inc.	Improvement and Sensitivity Analysis of the Atmospheric Chemistry Module for Modeling TICs in SCIPUFF

Noon–1:00PM LUNCH (On your own)

**Hazard and Environmental Modeling – Trinity Room A & B**  
**Session Chairs: Mr. Rick Fry & CDR Stephanie Hamilton, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Maj Tony Eckel, AFWA	Supporting Transport and Dispersion Modeling with Stochastic Weather
1:30PM – 2:00PM	Mr. George Bieberbach, NCAR	Joint Effects Model (JEM) Environmental Services Research and Development
2:00PM – 2:30PM	Dr. Dennis M. Garvey, ARL	Turbulence in the Stable Boundary Layer

**Operational Effects – Sabine Room**  
**Session Chair: Mr. Mark Fagan, AFRL**

Time	Author	Title
1:00PM – 1:30PM	Mr. Christopher M. Clem, DSTL	Development of CBRN Impact Assessment Capabilities
1:30PM – 2:00PM	Mr. Andrew Howe, DSTL	IMPACT Framework
2:00PM – 2:30PM	Mr. Ian Griffiths, DSTL	Using Experimentation to Support Future Capability Needs: Chem-Bio effects in the JFCOM Urban Resolve Experiment

**Testing & Evaluation – San Marcos Room**  
**Session Chair: Ms. Laura Sears, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Mr. Jeffery D. Peterson, Dugway Proving Ground	Overarching Collective Protection Model for Test and Evaluation
1:30PM – 2:00PM	Dr. Leonard N. Carter, U.S. Army Dugway Proving Ground	A New M&S Tool to Supplant Decontamination Testing: The Decontamination Efficacy Prediction Model
2:00PM – 2:30PM	Mr. James A. Kleimeyer, Ph.D., West Desert Test Center	Overarching Contamination Avoidance Model for Test and Evaluation

**Threat Agent Science – San Antonio Room**  
**Session Chair: Dr. Alison Director-Myska, JSTO**

Time	Author	Title
1:00PM – 1:30PM	Mr. Bojan Markicevic, Kettering University	Experimental and Numerical Prediction of Phase Permeability in Porous Media
1:30PM – 2:00PM	Mr. Homayun K. Navaz, Kettering University	Scalable Transport Models for Non-Evaporating and Evaporating Sessile Droplets within Porous Substrates
2:00PM – 2:30PM	Mr. Kilpatrick	Agent Fate Predictive Modeling

2:30PM – 3:00PM BREAK

**Hazard and Environmental Modeling – Trinity Room A & B**  
**Session Chair: CDR Stephanie Hamilton, JSTO**

Time	Author	Title
3:00PM – 3:30PM	Dr. David Stauffer, PSU	On the Role of Atmospheric Data Assimilation and Model Resolution on Meteorological Accuracy and Atmospheric Transport and Dispersion
3:30PM – 4:00PM	Dr. Leonard J. Peltier, ARL/PSU	Assessing the Impact of Meteorological Model Uncertainty on SCIPUFF Atmospheric Transport and Dispersion Predictions
4:00PM – 4:30PM	Mr. Walter Kolczynski Jr., PSU	A Practical Method for Calibration of Ensemble Spread for Representation of Meteorological Uncertainty in Atmospheric Transport and Dispersion Models
4:30PM – 5:00PM	Dr. William J. Coirier, CFDR	Progress Towards An Improved High-Fidelity Forecasting Capability using Combined Mesoscale and Microscale Models
5:00PM – 5:30PM	Mr. Matthew C. Ward, Applied Science Associates	Development of an HPAC/JEM Waterborne Chemical and Biological Agent Transport Modeling Capability

**Operational Effects – Sabine Room**  
**Session Chair: Mr. Mark Fagan, AFRL**

Time	Author	Title
3:00PM – 3:30PM	Mr. Kip Reeths, Cubic	JOEF Transitions Legacy Applications to a Service-Oriented Architecture
3:30PM – 4:00PM	Dr. Nadipuram (Ram) R. Prasad, New Mexico State University	Mining for resource effectiveness to mitigate Chem-Bio attack consequence
4:00PM – 4:30PM	Mr. Darius Munshi, Cubic Defense Applications	CBRN Data Import Export Tool
4:30PM – 5:00PM	Dr. Stephen Helmreich, Computing Research Laboratory New Mexico State Univ.	Chem-Bio engagement scenario space, Chem-Bio engagement scenarios, and the CBRN Data Model
5:00PM – 5:30PM	Mr. Dave Hoffman, UNM	Mobile Forces

**Testing & Evaluation – San Marcos Room**  
**Session Chair: Ms. Laura Sears, JSTO**

Time	Author	Title
3:00PM – 3:30PM	Dr. Martyn Bull, RiskAware, Ltd	Concentration Fluctuation Model for the Virtual Testing of CBRN Detector Systems
3:30PM – 4:00PM	Dr. Ashok J. Gadgil, Lawrence Berkeley National Laboratory	Decontamination of ductwork using Vaporous Hydrogen Peroxide: Comparison between experiments and CFD predictions
4:00PM – 4:30PM	Dr. Elena Abadjieva and Dr. Renier Sterkenburg, HAPPIE/RIOT	HAPPIE/RIOT A Dutch Missile Intercept Simulator
4:30PM – 5:00PM	Ms. Jennifer Park,	Standardizing VV&A Documentation

**Threat Agent Science – San Antonio Room**  
**Session Chair: Dr. Alison Director-Myska, JSTO**

Time	Author	Title
3:00PM – 3:30PM	Dr. Tom J. Evans, Cubic Threat Technologies Division	Quantum Chemical Theory Research
3:30PM – 4:00PM	Dr. William A Brence, Battelle	Development of in-silico Predictive Molecular Modeling Tools to Identify, Validate and Select Operationally Suitable Agent Simulants for OT&E
4:00PM – 4:30PM	Dr. William J. Welsh, University of Medicine & Dentistry of New Jersey Robert Wood Johnson Medical School	Next-Generation Computational Chemistry Tools to Predict Toxicity of CWAs

5:30PM

Conference Adjourns

**POSTERS ARE LOCATED IN THE EXHIBIT HALL**  
**(During Exhibit Hours Only)**

Author	Title
Dr. William J. Coirier, CFDR	Calibration and Use of Site-Specific Urban Weather Observations Data using Microscale Modeling
Mr. Robert M. Kelly Jr., Monmouth University	Innovative Emergency Response Information Technology Applications: Civilian to Military Crossover Opportunities
Mr. Jack Berndt, OptiMetrics Inc	Using ADASHI to bring Civil and Military First Responders together
Dr. Robert Gordon, RiskAware, Ltd.	Effective Presentation of CBRN Hazards
Dr. Cory Davis, MadahCom	Warning, the Critical Element
Mr. Joshua Pressnell, JPEO-CBD Software Support Activity	The Road to Net Centricity : A Common Direction
Mr. David A. Ence, Lockheed Martin	DEFENDER – An Enterprise Architecture and Integrated Network Solution for CBRN Detection
Mr. Steven S. Streetman, ENSCO, Inc.	Integrating Sensors and Operator/Responder Actions to Improve CBRN Incident Management
Mr. Hung Dang, NMSU	On Sensitivity and Credit Analysis for Decision Support Systems



2111 Wilson Boulevard  
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Arlington, VA 22201

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