

***With the Special Cooperation of Public Safety and Emergency Preparedness Canada (PSEPC) and the Department of Homeland Security (DHS) USA***

Jointly organized by the Technopôle – Defence and Security, Defence R&D Canada and PÔLE Québec Chaudière–Appalaches, Defence Security Innovation 2005 is a unique Canada-wide biennial forum on safety and security. It is intended to foster contact between industry, defence research centres, private and public research facilities and universities in order to establish an environment conducive to recognition and exchange among businesses.

Choose from among the great challenges:

- Prevent, Prepare for and Respond to Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Threats
- Critical Infrastructure Protection (CIP)
- Human Aspects of Counter-terrorism and Borders and Territory Protection (Disruption and Interdiction-DI)
- Capability Integration towards Emergency Preparedness (System Integration, Standards and Analysis-SISA)

## **PRELIMINARY PROGRAM**

**Please note that the program is subject to change without prior notice.  
All presentations will be made in English.  
Registration fee includes banquet and meals.**

## **PARTNERS IN SCIENCE AND TECHNOLOGY FOR PUBLIC SECURITY**

More than 70 presentations and 30 posters delivered by well-known experts

### **TUESDAY NOVEMBER 15, 2005 REGISTRATION**

5:30 - 7:30 p.m.      **Registration and opening cocktail, a privileged networking activity**

### **WEDNESDAY NOVEMBER 16, 2005 DEVELOPING S&T PRIORITIES FOR PUBLIC SECURITY BALLROOM**

7:30 - 8:30 a.m.      **Networking Breakfast  
Registration**

8:30 – 9:30 a.m.      **Official Opening  
Public Security and Emergency Preparedness Canada, Ms. Margaret Bloodworth, Deputy Minister  
U.S.Department of Homeland Security (DHS), Mr. Charles E. McQueary PhD, Under Secretary for the Science & Technology Directorate**

9:30 - 9h50 a.m.      **Overview of the CA-US Public Security Technical Program (PSTP): Defence Research and Development Canada, Department of National Defence by Mr. Robert Walker PhD, Chief Executive Officer of Defence R&D Canada and Assistant Deputy Minister of Science & Technology (ADM(S&T)) within the Department of National Defence U.S. Department of**

	<b>Homeland Security (DHS)</b> by Ms. Holly Dockery PhD, Special Assistant for International Policy Science and Technology Directorate
9:50 - 10:20 a.m.	<b>BREAK</b>
10:20- 10:50 a.m.	<b>Ministère de la sécurité publique Québec: <i>Emerging Threats : a Challenge for Civilian Security</i></b> by Mr. Michel Doré, Associate Deputy Minister, Direction générale de la sécurité civile et de la sécurité publique
10:50 - 11:20 a.m.	<b>NBC Industy Group: <i>Industry's Role in Public Security</i></b> by Neil Bloomfield, Director, Aviation Security, GE Security
11:20 a.m. - 11:50 p.m.	<b>École Polytechnique de Montréal</b> by Mr. Benoît Robert
11:50 - 12:20 p.m.	<b>Hicks &amp; Associates inc.: <i>Transferring Military Technology for Homeland Security</i></b> by Mr. Robert V. Tuohy, VP Strategic Planning
12:20 - 1:50 p.m.	<b>Lunch buffet</b> <b>Poster session</b>
1:50 - 2:20 p.m.	<b>Public Safety and Emergency Preparedness Canada (PSEPC)</b> by Mr. Peter Hill, Deputy Director General Emergency Management Policy
2:20 - 2:40 p.m.	<b>Defence Research and Development Canada, Department of National Defence</b> by Mr. Robert Walker PhD, Chief Executive Officer of Defence R&D Canada and Assistant Deputy Minister of Science & Technology (ADM (S&T)) within the Department of National Defence
2:40 - 3:00 p.m.	<b>U.S. Department of Homeland Security (DHS): <i>Overview – DHS S&amp;T Technology Priorities</i></b> by Ms. Holly Dockery PhD, Special Assistant for International Policy Science and Technology Directorate
3:00 - 3:30 p.m.	<b>BREAK</b>
3:30 - 4:00 p.m.	<b>National Security Division Department of the Prime Minister and Cabinet Australia; Science, Engineering and Technology Unit: <i>Overview of Australia's Science &amp; Technology Priorities</i></b> by Mr. Karsten Lehn
4:00 - 4:30 p.m.	<b>Defence Research and Development Canada Department of National Defence: <i>Critical Risk Assessment Methodology</i></b> by M. Alain Goudreau MSc PEng, Portfolio Manager Public Security Technical Program (PSTP)
4:30 - 4:45 p.m.	<b>Update on CA-US Coordinated Risk Assessment : Defence Research and Development Canada Department of National Defence</b> by Mr. Alain Goudreau MSc PEng, Portfolio Manager Public Security Technical Program (PSTP)
4:45 - 5:15 p.m.	<b>U.S. Department of Homeland Security (DHS)</b> by Mr. Stephen Dennis PhD, Senior Engineering Advisor, Threat Awareness Portfolio, Science and Technology Directorate <b>Introduction to Public Security Technical Program (PSTP) 4 mission areas: Defence Research and Development Canada, Department of National Defence</b> by Mr. Robert Walker PhD, Chief Executive Officer of Defence R&D Canada and Assistant Deputy Minister of Science & Technology (ADM(S&T)) within the Department of National Defence <b>U.S. Department of Homeland Security (DHS)</b> by Ms.Holly Dockery PhD, Special Assistant for International Policy Science

and Technology Directorate  
5:15 - 6:15 p.m. **Cocktail**  
**Poster Session**  
7:00 - 9:30 p.m. **Banquet – Ball room**

**Business meetings will take place throughout the day via  
the Defence Security Innovation online appointment service.**

**THURSDAY NOVEMBER 17, 2005**  
**FOUR CONCURRENT CHALLENGE SESSIONS**

7:30 - 8:45 a.m. **Breakfast - Networking**

**CHALLENGE: Prevent, Prepare for and Respond to Chemical, Biological,  
Radiological, Nuclear and Explosives (CBRNE) Threats**  
**FRONTENAC ROOM COME**

8:45 - 9:25 a.m. **Opening**  
**Defence Research and Development Canada, Department of  
National Defence** by Mr. Camille A. Boulet PhD, Director  
CBRN Research and Technology Initiative  
**U.S. Department of Homeland Security (DHS)** by Mr. Bert  
Coursey PhD, Director, Standards Portfolio, Science &  
Technology Directorate

9:30 – 9:55 a.m. **Advanced Integrated MicroSystems Ltd : *Lab-on-a-Chip  
Technology for Biological Sample Processing*** by Mr. Abebaw  
B. Jemere PhD, Scientist

10:00 - 10:25 a.m. **U.S. Department of Homeland Security (DHS): *Standards for  
CBRNE Detectors for Emergency Responders*** by Mr. Bert  
Coursey PhD, Director, Standards Portfolio, Science &  
Technology Directorate - *TBC*

10:30 - 10:55 a.m. **DRDC Suffield : *The Reactive Skin Decontaminant Lotion  
(RSDL Ò ) – Development and Future Initiatives*** by Mr.  
Andrew Burczyk PhD, Defence Scientist

11:00 - 11:25 a.m. **BREAK**

11:30 - 11:55 a.m. **DRDC Suffield : *Biodetection and Identification at DRDC  
Suffield*** by Mr. William Lee PhD, Defence Scientist

12:00 - 1:55 p.m. **Lunch Buffet**  
**Poster Session**

2:00 - 2:25 p.m. **Cangene Corporation : *Therapeutic Antibodies Against Ebola  
and Marburg*** by Mr. Donald Stewart PhD, Director, Research

2:30 - 2:55 p.m. **Association of Analytical Communities: *Evaluation of  
Bacillus Anthracis Hand Held Assays*** by Mr. Scott Coates,  
Senior Managing Director, AOAC Research Institute

3:00 - 3:25 p.m. **DRDC Suffield : *Industrial Chemicals as Weapons of Mass  
Destruction*** by Ms. Joan Armour PhD, Defence Scientist

3:30 - 3:55 p.m. **BREAK**

4:00 - 4:25 p.m. **U.S. National Institute of Standards and Technology:  
*Development of a US National Standard for Sampling  
Suspicious Powders*** by Ms. Laurie Locascio PhD, Group Leader

4:30 - 5:00 p.m. **DRDC Suffield : *Prophylactic Efficacy of Genetically  
Engineered Human Butyrylcholinesterase Against G-Agents in***

5:00 *Domestic Swine* by Mr. Thomas Sawyer PhD, Defence Scientist  
**Optional activities**

**CHALLENGE: 2. Critical Infrastructure Protection (CIP)**  
**PLACE D'ARMES ROOM**

8:45 - 9:25 a.m. **Opening**  
**Public Safety and Emergency Preparedness Canada (PSEPC)** by Mr. Christopher Tucker PhD, Senior Scientific Advisor, Emergency Management Policy Directorate  
**U.S. Department of Homeland Security (DHS)** by Mr. Paul Domich PhD, Director, Critical Infrastructure Protection, Science and Technology Directorate

9:30 – 9:55 a.m. **DRDC Valcartier : *TerroGate: A new Information Extraction Technology Designed for the Terrorism Domain*** by Mr. Alain Auger PhD, Defence Scientist

10:00 - 10:25 a.m. **Los Alamos National Laboratory: *Critical Infrastructure Protection Decision Support System*** by Ms. Lori Dauelsberg, Technical Staff Member, U. S. Department of Energy

10:30 - 10:55 a.m. **DRDC Suffield : *Evaluation and Prediction Capabilities for Improvised Explosive Threats to Urban Infrastructure and Environments*** by Mr. Akio Yoshinaka PhD, Defence Scientist

11:00 - 11:25 a.m. **BREAK**

11:30 - 11:55 a.m. **DYCOR USA Inc .: *Protecting people and things: Different but the Same*** by Mr. Tony Brunetto, VP Special Applications Division

12:00 - 1:55 p.m. **Lunch buffet**  
**Poster session**

2:00 - 2:25 p.m. **DYCOR USA Inc .: *Challenges to Mitigating CIP Vulnerabilities*** by Mr. Tony Brunetto, VP Special Applications Division

2:30 - 2:55 p.m. **U.S. Department of Homeland Security ( DHS): *Secure Wireless Communications Pilot*** by Mr. Douglas Maughan PhD, Program Manager, Cyber Security R & D, Science & Technology Directorate

3:00 - 3:25 p.m. **DYCOR USA Inc .: *CIP Assessments and Vulnerability Identification – Much More Than Just Physical Security*** by Mr. Tony Brunetto, VP Special Applications Division

3:30 - 3:55 p.m. **BREAK**

4:00 - 4:25 p.m. **U.S. Department of Homeland Security ( DHS) and Homeland Security Advanced Research Agency (HSARPA): *Chemical /Municipal Water Study*** by Mr. William Rees PhD, Program Manager, HSARPA , Science & Technology Directorate

4:30 - 5:00 p.m. **École Polytechnique Montreal : *Static Analysis to Discover Security Flaws in PHP Applications*** by Mr. Pierre-Marc Bureau

5:00 **Optional activities**

**CHALLENGE : Human Aspects of Counter-terrorism and Borders and Territory Protection (Disruption and Interdiction-DI)**  
**LAVAL ROOM**

8:45 - 9:25 a.m.	<b>Opening</b> <b>DRDC, Centre for Operational Research and Analysis</b> by Ms. Maria Rey PhD, Director General <b>U.S. Department of Homeland Security (DHS)</b> by Ms. Jeanne Lin, Director, Borders and Transportation Security Portfolio, Science and Technology Directorate
9:30 – 9:55 a.m.	<b>DRDC Valcartier</b> : <i>Harbour Infrastructure and Ship Protection Against Underwater Threats Using Detection/Identification by Active Imaging</i> by Mr. Georges Fournier PhD, Defence Scientist
10:00 - 10:25 a.m.	<b>U.S. Department of Homeland Security ( DHS): DHS Cargo Security Initiative</b> by Mr. Robert Knetl, Program Manager for Cargo Security, HSARPA, Science & Technology Directorate
10:30 - 10:55 a.m.	<b>Optosécurité Inc. :</b> <i>Automated Threat Detection for Airport Security Screening</i> by Mr. Luc Perron, VP Product Development
11:00 - 11:25 a.m.	<b>BREAK</b>
11:30 - 11:55 a.m.	<b>NSim Technology</b> : <i>ViSim Project: Collaborative Decision Supporting System</i> by Mr. Jimmy Perron MSc, Scientific Director
12:00 - 1:50 p.m.	<b>Lunch buffet</b> <b>Poster session</b>
2:00 - 2:25 p.m.	<b>DRDC Atlantic:</b> <i>Maritime Defence to Marine Security: Research and Development Challenges</i> by Mr. Mark McIntyre PhD, Defence Scientist and Ms. Francine Desharnais
2:30 - 2:55 p.m.	<b>Old Dominion University</b> : <i>System of Systems Engineering in Border Security</i> by Mr. Charles B. Keating PhD, Assistant Professor and Graduate Program Director for Engineering Management
3:00 - 3:25 p.m.	<b>Biokinetics and Associates Ltd</b> : <i>Performance Evaluation of Personal protection Systems</i> by Mr. Nicholas Shewchenko, President
3:30 - 3:55 p.m.	<b>BREAK</b>
4:00 - 4:25 p.m.	<b>U.S. Department of Homeland Security ( DHS) :S&amp;T Countermeasures Test Bed – Mass Transit</b> by Mr. Adam Hutter PhD, Director, New York Project Office, Countermeasures Test Beds, Science & Technology Directorate
4:30 - 5:00 p.m.	<b>Protection of Our Shared Border – Today and Tomorrow</b> : DRDC Corpo by Mr. Jon Thorleifson DSTM 5 RCMP IBET National Coordination by Sgt Dwight Kirkup
5:00	<b>Optional activities</b>

**CHALLENGE: Capability Integration towards Emergency Preparedness (System Integration, Standards , and Analysis-SISA)**  
**JACQUES-CARTIER ROOM COME**

8:45 - 9:25 a.m.	<b>Opening</b> Technical Challenges for Public Security Technology Program, Systems Integration, Standards and Analysis <b>Public Safety and Emergency Preparedness Canada (PSEPC)</b> by Mr. Richard Saucier, Director Science and Technology Policy Division <b>U.S. Department of Homeland Security (DHS)</b> by Mr. Stephen Dennis PhD, Senior Engineering Advisor, Threat
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9:30 – 9:55 a.m.	Awareness Portfolio, Science and Technology Directorate <i>Collation and Link Analysis Tools Supporting the Intelligence Analyst: DRDC Valcartier</i> by Mr. Gaétan Thibault, Defence Scientist and Maj Michel Gareau, Military Advisor <b>Fujitsu Consulting</b> by Mr. François LeMay, Program Manager
10:00 - 10:25 a.m.	<b>Pacific Northwest National Laboratory : National Visual Analytics Center</b> by Mr. Richard May PhD, Senior Research Scientist
10:30 - 10:55 a.m.	<b>DRDC Suffield: Terrorist Scenarios – Real or Imaginary</b> by Ms. Joan Armour PhD, Defence Scientist
11:00 - 11:25 a.m.	<b>BREAK</b>
11:30 - 11:55 a.m.	<i>The Applicability of an Architecture Based Approach for the Development of Complex Situation Scenarios for Support Multi-Level Interagency Collaboration: Greenley &amp; Associates</i> by Ms. Anet Greenley <b>DRDC Center for Operational Research and Analysis (CORA)</b> by Mr. Kendall Wheaton PhD
12:00 - 1:55 p.m.	<b>Lunch buffet</b> <b>Poster session</b>
2:00 - 2:25 p.m.	<b>Lyrtech: Software Defined Radios: towards Fully Integrated Communications for Improved Emergency Response</b> by Mr. Dakx Turcotte, Corporate Sales Director – Defense and Security Group
2:30 - 2:55 p.m.	<b>USA</b> by Mr. Richard Wilson, Technical Director, Multi-INT Research
3:00 - 3:25 p.m.	<b>Public Safety and Emergency Preparedness Canada (PSEPC) : Agro-terrorism: a Continental Challenge to 21 st Century Innovation</b> by Mr. Shane Roberts, Policy Advisor, Science & Technology Policy
3:30 - 3:55 p.m.	<b>BREAK</b>
4:00 - 4:25 p.m.	<b>Interagency Modeling Atmospheric Assessment Center (IMAAC): Making our Cities Safer through Regional Technology Integration</b> by Ms. Nancy Suski PhD, Director, Emergency Preparedness and Response Portfolio, Science & Technology Directorate
4:30 - 5:00 p.m.	<b>Oerlikon Contraves Canada: A Systematic Approach for Employment of Military Technologies to Improve Homeland Security</b> by Mgen Ret'd Pierre Daigle, Senior Consultant
5:00	<b>Optional activities</b>

## FRIDAY NOVEMBER 18, 2005

### BUSINESS OPPORTUNITIES FOR PRIVATE SECTORS AND

### ACADEMIA

Presentation order may be reviewed

7:30 - 8:25 a.m.	<b>Breakfast - Networking</b> <b>ROOM TO BE DETERMINED</b>	<b>ROOM TO BE DETERMINED</b>
8:30 – 8:55 a.m.	<b>Homeland Security Advanced Research Agency (HSARPA)</b> to be confirmed	<b>Industry Canada</b> – to be confirmed
9:00 – 9:25 a.m.	<b>Exportation</b>	<b>Transports Canada</b> –to be confirmed

9:30 – 9:55 a.m.	<b>Development Canada (EDC)</b> to be confirmed	<b>Canadian Research Technology Initiative (CRTI)</b> – to be confirmed	<b>Canadian Commercial Corporation (CCC)</b> Security is Everybody’s Business, Mr. Norm Weir, Senior Account Executive Security Products
10:00 – 10:25 a.m.	<b>National Research Council Canada</b> to be confirmed	<b>Defence Research and Development Canada (DRDC)</b> to be confirmed	
10:30 – 11:55 a.m.	Panel <b>Defence Research and Development Canada, Department of National Defence</b> , Mr. Robert Walker PhD, Director General, Research and Development Programs - moderator		
12:00 – 2:00 p.m.	Lunch –Conference, Closing Remarks		

#### Posters CBRNE

Organisation	Presenter	Title
NRC	Caroline Vachon, PhD	Sensor Technology for the Rapid Detection and Identification of Pathogens used as Bioweapons
DRDC Ottawa	Lorne S. Erhardt, PhD	Experimental Characterization of Risk for Radiological Dispersal Devices
DRDC Suffield	John E. McFee, PhD	Defence R&D Canada Research on Nuclear Methods for Detection of Bulk Explosives
DRDC Ottawa	Shyam Khanna	Development of a Gamma-ray Spectrometric and Dosimetric System for use on UAV
Environnement Canada	Michel Jean	Advanced Emergency Response System for CBRN Hazard Prediction and Assessment for the Urban Environment

#### Posters CIP

Organisation	Presenter	Title
NRC	Sylvie Jodouin	Hydro data framework in support of public safety agencies
NRC	Marcel Sabourin	The National Road Network (NRN)
Argon Security Technology	Barry Hagglund	Rapid Deployment Surveillance for Force Protection
SimActive Inc.	Philippe Simard	3D Change Detection in Urban Environments
DRDC Valcartier	Alain Auger, PhD	TerroGate: A new Information Extraction Technology

#### Posters DI

Organisation	Presenter	Title
KOREM inc.	Sébastien Vachon	New York Police Department (NYPD) Real Time Crime Management
Institut maritime du Québec (IMQ) /Innovation maritime	Larbi A. Yahia	Status of Implementation the Maritime Security Regulations in Canada
LPS International inc.	William Awad, president and CEO	BioSans: an automated expert threat detection system
Canadian Space Agency	Chris Lorenz	Space-based Support to Marine Security
SNC Technologies inc.	John MacDougall	Simunition® : A Canadian - made solution to the Global Terror Threat

Posters SISA

<b>Organisation</b>	<b>Presenter</b>	<b>Title</b>
DRDC Valcartier	Christophe Necaillé	Collaborative Capability Definition, Engineering and Management (CapDEM TD)
Greenley & Associates	Chris Pogue	A Metrics Approach to Enable Capability Integration within Emergency Preparedness Framework
Pare-Chute Inc.	Françoise Tremblay	Pare-Chute: a descent controlled device designed for evacuation of persons in danger or descent of equipment
DRDC Valcartier and DMR Consulting	Gaétan Thibault	The Land Force Collaborative Workspace Software Application
NRC and World Reach Corporation	Laura L. Brown	The Rapid Triage Management Workbench (RTMW)