NORTH ATLANTIC TREATY ORGANISATION

RESEARCH AND TECHNOLOGY ORGANISATION

SYMPOSIUM

C3I FOR CRISIS, EMERGENCY AND CONSEQUENCE MANAGEMENT

C3I pour la gestion des urgences, des crises et de leurs conséquences

IST-086 / RSY-019

organised by the

Information Systems and Technology Panel

to be held in

BUCHAREST, Romania

Monday 11 May 2009 - Tuesday 12 May 2009

This Symposium is open to citizens from NATO and Partner for Peace Nations

Latest Enrolment Dates

NATO Nations	**Monday, 4 May 2009**
PfP Nations	**Monday ,20 April 2009**

Enrol Online at:

http://www.rto.nato.int

Once your enrolment is validated, you will receive a General Information Package (GIP) giving you further necessary details about the meeting.

If you are unable to enrol via the internet, please contact the IST Panel Assistant at: apaydina@rta.nato.int

All presentations and discussions will be held in either English or French, the official NATO languages. Simultaneous interpretation between the two languages will be provided.

Background

The mission of RTO is to conduct and promote co-operative research and information exchange. RTO consists of a three level organisation: the Research and Technology Board (RTB), the Panels and the Technical Teams. Information Systems Technology Panel (IST) is one of the seven Panels under the RTB and whose role it is to implement, on behalf of the R&T Board, the RTO Mission with respect to Information Systems Technology. The advancement and exchange of techniques and technologies to provide timely, affordable, dependable, secure and relevant information to war fighters, planners and strategists, as well as enabling technologies for modelling, simulation, and training are the focus of this Panel. The Information Systems Technology Panel covers the fields of Information Warfare and Assurance, Information and Knowledge Management, Communications and Networks and Architecture and Enabling Technologies.

Theme

The events of September 11, 2001 moved the issues of anti- and counter-terrorism, national/public security, and collective emergency response (both crisis and consequence management) to the fore of concerns of many nations. Complex situations typical of the post 9/11 new security paradigm include critical infrastructures, major events (e.g. Olympics), harbours and airports protection against terrorist attack. In the event of a large-scale terrorist emergency situation, that would necessitate the ability to coordinate multi-agency and multi-national operations and during peace support operations, advanced decision support, knowledge exploitation, information fusion and knowledge management tools can significantly improve the ability to respond to such emergency. Among key issues are national security policies and the roles of NATO. Approaches and technologies aiding military experts to work together effectively with other civil authorities at all levels and international allies shall be conceptualized. This shall yield to a collaborative environment that would support the fusion of various perspectives to better interpret the situation, diagnose the problem, identify candidate actions, formulate evaluation criteria, decide actions, and synchronize a diverse set of plans.

The military viewpoint alone is not sufficient to meet the increase in terrorist threat that is diverse and unpredictable; as such threats require a consideration of collective security that expands to cooperation with multiple non-military organisations (e.g. major events, harbour protection). Actually, working effectively in terrorist emergency situations requires the ability to communicate and to coordinate multi-national and multi-agency operations in a seamless environment. There are vast quantities of data and information requiring collection, sorting, and analysis. Clearly, advanced information and knowledge management technology, for example, is required to enable the emergency response communities to timely and securely access data, information, services, etc. relevant to their roles and responsibilities, regardless of what agency operates the facilities where the critical data and services reside.

Symposium Objective:

The objective is of this Symposium is to address key issues and concepts that could overcome the limitations listed above taking into account the complexity of the domain (see the domain characteristics). The main topics to be covered to help military organisations working together effectively with other civil authorities at all levels, National and International allies for the management of a Collective Response to a Crisis/Emergency are:
- Decision-support;
- Information management;
- Human systems integration;
- Knowledge management in crisis and emergency situations;
- Distributed collaborative planning.

The Symposium will address a number of current NATO priorities, including NATO Rapid Response, and Defence against terrorism (DAT).

Programme Committee

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IST-086 Symposium on "C3I in Crisis, Emergency and Consequence Management"
Programme

Monday 11 May 2009

08:30		Registration
09:30		OPENING CEREMONY
		Welcome Speech by Host Nation Representative
		Introduction Prof. Jürgen GROSCHE, IST Panel Chairman, DEU
		Introduction Dr. Éloi BOSSÉ, Symposium Co-Chair, CAN
10:00		KEYNOTE SPEECH Dr. James LLINAS, State University of New York at Buffalo, USA
10:45		BREAK

SESSION 1 - Communications Strategies and Infrastructures

11:15	1	NATO´s Strategic Communication in Combating Terrorism by Viorel MIHAILA, University of Bucharest, ROM
11:45	2	Relay Placement for Ad-Hoc Networks in Crisis and Emergency Scenarios by Jens TÖLLE and Thorsten AURISCH, FGAN-FKIE, DEU
12:15		LUNCH

SESSION 2 - Information and Knowledge Management

14:00	3	A Collaborative Command Portal Environment in Support of Crisis and Emergency Situations by Anne-Claire BOURY-BRISSET, DRDC-Valcartier, CAN
14:30	4	The Oasis Approach to Civil/Military Information Sharing for Disaster and Emergency Management by Alan CULLEN, Sean BARKER, Simon CASE, Tony RYE, BAE Systems Advanced Technology Centre, Bjorn ROSSOW, THALES Norway, and Edith WILKINSON, Cranfield University, GBR
15:00	5	Operational Knowledge Management as an International Interagency Interoperability Vehicle by Gil ARIELY, The Institute for Counter-Terrorism, Lauder School of Government, ISRAËL
15:30		BREAK
16:00	6	Knowledge Mapping in Emergency Operations by Régine LECOCQ, DRDC-Valcartier, CAN

16:30	7	Interoperable Sharing of Information with the Coalition Shared Database (CSD) by Barbara ESSENDORFER, Fraunhofer IITB, DEU and Wilmuth MUELLER, NC3A, NLD
17:00	8	Adaptive Resilience of the Cognitive Packet Network in the Presence of Network Worms by Georgia SAKELLARI, Erol GELENBE, Imperial College, GBR
19:00		HOST NATION BUFFET/RECEPTION for all Symposium Attendees and their spouses/companions

Tuesday 12 May 2009

SESSION 3 - Information Fusion

09:00	9	Crisis Management Using Dempster Shafer Theory: Using Dissimilarity Measures to Characterize Sources´ Reliability by Mihai Cristian FLOREA, THALES Canada and Éloi BOSSÉ, DRDC-Valcartier, CAN
09:30	10	Information Fusion for Harbor Security Through Persistent Surveillance by Erik BLASCH, AFRL/RYAA, USA and Elisa SHAHBAZIAN, Pierre VALIN, Éloi BOSSÉ, DRDC-Valcartier, CAN
10:00	11	Fusion and Inference in Surveillance Networks by Michael RABBAT and Mark COATES, McGill University, CAN
10:30		BREAK

SESSION 4 - Decision Support

11:00	12	Which Information and Decision Support System for the Crisis Management? by Florence ALIGNE, THALES Research & Technology, FRA
11:30	13	A Time Sensitive Decision Support System for Complex Situations by Adel GUITOUNI, DRDC-Valcartier, CAN
12:00	14	Information Evaluation as a Decision Support for Counter-Terrorism by Thomas DELAVALLADE and Philippe CAPET, THALES, FRA
12:30		LUNCH
14:00	15	Emergency Response Systems for Disaster Management in Buildings by Avgoustinos FILIPPOUPOLITIS, Georgios LOUKAS, Stelios TIMOTHEOU, Nikolaos DIMAKIS and Erol GELENBE, Imperial College, GBR

SESSION 5 - Situational Awareness and Collaboration

14:30	16	A Recoverability Assessment Model and Application in Emergency Management by An CHEN, Chinese Academy of Sciences, Institute of Policy and Management, Beijing, Jing ZHAO, School of Mathematics, Shandong University, Jinan and Ning CHEN, GECAD, Instituto Superior de Engenharia do Porto, CHINA
15:00	17	Insufficient Situational Awareness about Critical Infrastructures by Emergency Management by Eric LUIIJF and Marieke KLAVER, TNO Defence, Security and Safety, NLD
15:30		BREAK

16:00	18	Conscious TRANSpersonal Catastrophe GGG-Management by Marina KHOKHLOVA, CEFEY Co., RUS
16:30	19	Intense Collaboration in Support of Emergency and Crisis Management by Denis GOUIN, DRDC-Valcartier, CAN
17:00		ROUND TABLE DISCUSSION
17:30		CLOSING CEREMONY with a BEST PAPER AWARD