

**Fourth Annual IFIP WG 11.10 International Conference
on Critical Infrastructure Protection
155 Marshall Hall
National Defense University
Fort McNair, Washington, DC
March 15-17, 2010**

March 15, 2010 (Monday)

**7:30am: Shuttle leaves from Mandarin Oriental Hotel to Marshall Hall, Fort McNair
Government-issued photo ID is required to enter Fort McNair**

8:00am - 8:50am: Breakfast (Marshall Hall)

9:00am - 9:10am: Welcoming Remarks

Robert Miller, Conference General Chair, National Defense University, Washington, DC, USA

Robert Childs, Sr. Director, Information Resources Management College, National Defense University, Washington, DC, USA

9:10am - 10:00am: Keynote Lecture

A Tale of Two Departments – How the Departments of State and Commerce Responded to the Same Nation-State Cyber Attack

Alan Paller, Director of Research, SANS Institute, Bethesda, Maryland, USA

10:00am - 10:30am: Break (South Atrium, Lincoln Hall)

10:30am - 12:00pm: Session 1: Themes and Issues

Chair: Tyler Moore, Harvard University, Cambridge, Massachusetts, USA

Security – At What Cost?

Neil Robinson and Dimitris Potoglou

RAND Europe, Cambridge, United Kingdom

Delft University of Technology, Delft, The Netherlands

Governing Foreign Investment and National Security in an Era of Increased Threats to Critical Information Infrastructures

Dan Assaf

University of Toronto, Toronto, Canada

An Analysis of the Legality of Government-Mandated Computer Inoculations

Mason Rice, Jonathan Butts, Robert Miller and Sujee Sheno

University of Tulsa, Tulsa, Oklahoma, USA

National Defense University, Washington, DC, USA

12:00pm - 1:30pm: Lunch (South Atrium, Lincoln Hall)

1:30pm - 3:15pm: Session 2: Control Systems Security

Chair: Stig Johnsen, SINTEF/Norwegian University of Science and Technology, Trondheim, Norway

Long-Lived Authentication Protocols for Critical Infrastructure Process Control Systems

Rasika Chakravarthy, Carl Hauser and Dave Bakken

Washington State University, Pullman, Washington, USA

A Distributed Critical State Detection System for Industrial Protocols

Igor Nai Fovino, Marcelo Masera, Michele Guglielmi, Andrea Carcano and Alberto Trombetta

Joint Research Centre of the European Commission, Ispra, Italy

Insubria University, Varese, Italy

Reducing the Latency of High Integrity Bump-in-the-Wire Devices for Legacy SCADA Systems

Rouslan Solomakhin, Patrick Tsang and Sean Smith

Dartmouth College, Hanover, New Hampshire, USA

Modeling Control System Failures and Attacks – The Waterloo Campaign to Oil Pipelines

Jonathan Butts, Mason Rice and Sujee Sheno

University of Tulsa, Tulsa, Oklahoma, USA

March 15, 2010 (Monday) (continued)

3:15pm - 3:45pm: Break

3:45pm - 5:00pm: Session 3: Infrastructure Security

Chair: Leon Strous, De Nederlandsche Bank, Amsterdam, The Netherlands

Protecting the Food Supply Chain from Criminal Manipulation and Terrorist Attack

Maria Jesus Alvarez, Ainara Alvaraz, Maria Carla De Maggio, Ainhoa Oses, Marcella Trombetta and Roberto Setola

University of Navarra, Navarra, Spain

University Campus Biomedica, Rome, Italy

Breakdown Effects Caused by Information Systems – Economic and Social Impact

Fabio Bisogni and Simona Cavallini

Formit Foundation, Rome, Italy

U.S. Federal Regulatory Oversight of Rail Transportation of Toxic by Inhalation Material

Mark Hartong, Rajni Goel and Duminda Wijesekera

Federal Railroad Administration, U.S. Department of Transportation, Washington, DC, USA

Howard University, Washington, DC, USA

George Mason University, Fairfax, Virginia, USA

5:00pm - 6:00pm: Tour of Fort McNair

6:00pm - 8:30pm: Conference Dinner (South Atrium, Lincoln Hall)

Shuttle leaves for Mandarin Oriental Hotel immediately after dinner

March 16, 2010 (Tuesday)

7:30am: Shuttle leaves from Mandarin Oriental Hotel to Marshall Hall, Fort McNair, Washington, DC
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8:00am - 8:50am: Breakfast (Marshall Hall)

9:00am - 10:00am: Keynote Lecture

Cyber Security, Crime, Espionage, War or Silo... The Critical Infrastructure Reality

Mischel Kwon, Vice President, Public Sector Security Solutions, RSA, Bedford, Massachusetts, USA

Former Director, U.S. CERT, Department of Homeland Security, Washington, DC, USA

10:00am - 10:20am: Break (South Atrium, Lincoln Hall)

10:20am - 11:45am: Session 4: Risk Analysis and Management

Chair: Scott Dynes, Institute for Information Infrastructure Protection, Dartmouth College, Hanover, New Hampshire, USA

Coupled Petri Nets for Computer Network Risk Analysis

Matthew Henry, Ryan Layer and David Zaret

Johns Hopkins University Applied Physics Laboratory, Laurel, Maryland, USA

Resilience in Risk Analysis and Risk Assessment

Stig Johnsen

SINTEF/Norwegian University of Science and Technology, Trondheim, Norway

The SEMA Referential Framework: Avoiding Ambiguities in Security and Safety Issues

Ludovic Piètre-Cambacédès and Claude Chaudet

Electricité de France, Clamart, France

Institut Telecom, Paris, France

11:45am - 1:00pm: Lunch (South Atrium, Lincoln Hall)

1:00pm - 2:00pm: Session 5: Intrusion and Anomaly Detection

Chair: Sebastian Hess, German Air Force, NATO AWACS, Geilenkirchen, Germany

Distributed IP Watch List Generation for Intrusion Detection in the Electrical Smart Grid

Ray Klump and Matt Kwiatkowski

University of Illinois at Urbana-Champaign, Urbana, Illinois, USA

Lewis University, Romeoville, Illinois, USA

Argonne National Laboratory, Argonne, Illinois, USA

Detecting SCADA Sensor Signal Manipulations in Nonlinear Chemical Engineering Processes

Thomas McEvoy and Stephen Wolthusen

Royal Holloway, University of London, London, United Kingdom

Gjøvik University College, Gjøvik, Norway

2:00pm - 3:00pm: Keynote Lecture

Keynote Lecture

Lieutenant General Keith Alexander, Director, National Security Agency; Chief, Central Security Service,

Fort Meade, Maryland, USA

3:00pm - 3:20pm: Break

3:20pm - 4:10pm: Session 6: Tools and Techniques

Chair: Roberto Setola, University Campus Biomedica, Rome, Italy

An Information Sharing Tool for Preventing Cascading Failure Effects in Large, Complex Critical Infrastructures

Claudio Balducelli, Roberto Clemente, Antonio Di Pietro and Giordano Vicoli

Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Rome, Italy

Telecom Italia, Rome, Italy

An Advanced Visual Analytic Decision Support Tool for Electricity Infrastructure Operations

Yousu Chen, Zhenyu Huang, Pak Chung Wong, Patrick Mackey, Craig Allwardt, Jian Ma and Frank Greitzer

Pacific Northwest National Laboratory, Richland, Washington, USA

March 16, 2010 (Tuesday) (continued)

4:10pm – 5:00pm: Session 7: Interdependency Modeling and Propagation

Chair: Stephen Wolthusen, Royal Holloway, University of London, London, United Kingdom

Extended Inoperability Input-Output Model – An Agent-Based Perspective

Gabriele Oliva, Stefano Panzieri and Roberto Setola

University of Rome III, Rome, Italy

University Campus Biomedica, Rome, Italy

Modeling of Critical Infrastructure Interdependencies and Inoperability Propagation Using Bayesian Networks

Zaw Zaw Aung and Kenji Watanabe

Nagaoka University of Technology, Niigata, Japan

Shuttle leaves for Mandarin Oriental Hotel immediately after Session 7

March 17, 2010 (Wednesday)

**7:30am: Shuttle leaves from Mandarin Oriental Hotel to Marshall Hall, Fort McNair, Washington, DC
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8:00am - 8:50am: Breakfast (Marshall Hall)

9:00am - 10:30am: Session 8: Security Assessment

Chair: Igor Nai Fovino, Joint Research Centre of the European Commission, Ispra, Italy; Insubria University, Varese, Italy

A Manufacturer-Specific Security Assessment Methodology for Critical Infrastructure Components

Thomas Brandstetter, Konstantin Knorr and Ute Rosenbaum

Siemens AG, Munich, Germany

University of Applied Sciences, Trier, Germany

Security Analysis of the MPLS Label Distribution Protocol

Daniel Guernsey, Aaron Engel, Jonathan Butts and Sujeet Sheno

University of Tulsa, Tulsa, Oklahoma, USA

Distributed Interactive Visualization of Interdependencies and Vulnerabilities in Constrained Environments

Nils Lunden, Robin Sveen, Hans Lund, Nils Svendsen and Stephen Wolthusen

Gjøvik University College, Gjøvik, Norway

Royal Holloway, University of London, London, United Kingdom

10:30am - 10:45am: Break (South Atrium, Lincoln Hall)

10:45am - 11:45am: Session 9: Themes and Issues

Chair: Neil Robinson, RAND Europe, Cambridge, United Kingdom

The Need for Critical Information Infrastructure Protection in the Developing World

Ian Ellefsen and Sebastiaan von Solms

University of Johannesburg, Johannesburg, South Africa

Applying Public Health Strategies to the Protection of Cyberspace

Mason Rice, Jonathan Butts, Robert Miller and Sujeet Sheno

University of Tulsa, Tulsa, Oklahoma, USA

National Defense University, Washington, DC, USA

11:45am - 12:30pm: Lunch (South Atrium, Lincoln Hall)

Shuttle leaves for Mandarin Oriental Hotel immediately after lunch