



Risk Management Tools For Port Security, Critical Infrastructure, and Sustainability

NATO Advanced Research Workshop 16 – 19 March 2006, Venice, Italy

Thursday, 16 March 2006

AM

1. Opening Remarks

8:00 – 8:30

Linkov, Ramadan, & Della Sala: Introduction
Mozel: Welcome from Venice International University
Salvi: Welcome from SRA-Europe
Beten (tentative): Welcome from NATO Science Program

8:30 **Linkov & Wenning:** Overview of the Workshop

2. Overview of Security Needs at Ports & Harbors

9:00 **Della Sala:** Security Challenges at the Port of Venice, Italy
9:20 **Bridges:** Security Challenges at Industrial Ports in the USA
9:40 **Austen:** Approaches and Options for Addressing Security Challenges at Industrial Ports
10:00 **Al-Halalah:** Potential Risk and Control of Contamination in the Gulf of Aqaba-Jordan

10:30 **Coffee Break**

3. Port Security: Emerging International Regulatory and Political Challenges

11:00 **Bronfman:** Political Challenges in Environmental Regulation in Middle East
11:20 **Rix:** A Systems Approach to Seismic Risk Mitigation for Ports
11:40 **Rahman:** Policy Considerations in Securing Containerized Supply Chains
12:00 **Salvi & Fontaine:** Protection of hazardous installations and critical infrastructures: Complementarity of Safety & Security Approaches

INVITED LUNCH SPEAKER (to be determined)

PM

4. Current Environment and Security Assessment Methods, Approaches, and Applications

1:30 **Valverde:** Multi-Criteria Analysis and the Emerging Threat Vulnerability Consequence (TVC)
Paradigm: Applications to Port Security
1:50 **Atoyev:** Global Changes, New Risks And Novel Methods And Tools Of Their Assessment: Modeling And Management Of Environmental Security In Ukraine
2:10 **Wenning:** Predicting, Ranking, and Prioritizing Probable Environmental Hazards and Risks
2:30 **Sargsyan:** Complex Secure Solutions for Sustainable Practices in Armenia: Tools and Methods for Effective Risk Management



3:00 Coffee Break

3:30 **5. Poster Session**

Menoni: Lifelines Earthquake Vulnerability: Towards A Systemic Approach

Turkman: Communication Problems During Emergency

Schlink: Spatiotemporal variation of health risks in terms of volatile organic compounds in air

Ramadan: Environmental security in urban areas: VOC Exposure in the Greater Cairo Area, Egypt

Lazarescu: The Safety Operation of Constanta Harbour During Winter

Baba: Application Of Rapid Impact Assessment Matrix (Riam) Method For Waste Disposal Site: Study Case- Canakkale (Turkey)

Ezell: Use of the Infrastructure Vulnerability Assessment Model (I-VAM) in the USA

Linkov: Use of Multi Criteria Decision Analysis (MCDA) in Security-related Areas

5:00

Formation of Working Groups and Review of Charges

WG1: Risk Management Tool Box 1: Defining Vulnerabilities at Ports, Harbors, & Industrial Sites

WG2: Risk Management Tool Box 2: Using Multi-Criteria Decision Making Tools to Rank and Prioritize Security Threats, Hazards and Risks

WG3: Risk Management Tool Box 3: Using Adaptive Management to Refine Prevention Plans & Response Actions Following Major Environmental Incidents

7:00 SOCIAL HOUR & DINNER (location to be determined)

Friday, 17 March 2006

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8:00 **Linkov & Wenning:** Brief Review of Day 1 Discussions & Working Group Activities

6. Risk Management Practices in Europe/Middle East

8:15 **Hakkinen:** European Union Experience in Risk Management

8:35 **Menoni:** Transportation Of Dangerous Goods: A Challenge For Risk Analysts And Risk Managers

8:55 **Ganoulis:** Risk Management in Mediterranean Region

9:15 **Haruvy:** A Model for Optimal Industrial Wastewater Treatment as a Tool for Managing Port Environmental Security and Sustainability

9:35 **Ramadan:** Risk Management in Egypt

9:55 **Rowan:** Preventing & Responding to Major Environmental Incidents in the UK: An Overview

10:15 **Rutjes:** Casualty Prevention in the Netherlands: Current & Emerging Security Practices

10:30 **Coffee Break**



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7. Risk Management Practices in the USA and Canada

- 11:00 Bennett:** Approaches and Communication Strategies for Bioterrorism Risk Analysis
11:20 MacDonell: Screening Approaches for Contaminant Threats and Health Risks to Guide Preparedness and Protection for Critical Infrastructure
11:40 Parnell: Decision Analysis Tools for Risk Management of Industrial Ports and Harbors
12:00 Kapustka: Invasive Species: a real, but largely ignored threat to environmental security.

INVITED LUNCH SPEAKER (to be determined)

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8. Work Group Meetings #1

9. Report from Work Group Meetings #1

SOCIAL HOUR & DINNER (location to be determined)

Saturday, 18 March 2006

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10. Improving Decision-Making for Environmental Protection and Security

- 8:00 Kiker:** The Concept of Resilience and its Application to Port Security
8:20 Lambert: Risk-Cost-Benefit Analysis of Port Security Investments: Achieving Redundancy, Robustness, and Resilience
8:40 Figueira: Advances in the Use of Multi-Criteria Analysis Methods in Decision-Making
9:00 Apitz: Conceptual Frameworks for Balancing Ecosystem Considerations and Security Goals in Coastal Areas
9:20 Tag Eldeen: TBA

11. Work Group Meetings #2

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12. Work Group Reports

- WG#1 Representative
- WG#2 Representative
- WG #3 Representative

13. Plenary Summary of Workshop & Next Steps

- Della Sala & Wenning:** Summary of Key Results and Research Needs
Linkov & Ramadan: Schedule for Publication of Proceedings & Next Steps for Workshop

SOCIAL HOUR & DINNER (location to be determined)

Sunday, 19 March 2006

Informal discussions, Departure