

Registration Card

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Registration must be made by November 1, 2004. Online registration is also available on the Center's website: www.ni2cie.org/tunnels/tunnelmain.htm. A limited number of registrations are allowed and we encourage you to register early to ensure your participation.

Name/Title:

Company:

Address:

City, State, Postal Code

Country:

Telephone:

Telefax:

E-mail:

I would like to register for the International Symposium on Tunnel Safety & Security (TSS) to be held November 16-17, 2004.

Price: Registrations postmarked by September 16, 2004	US Gov't & Academic	US\$395
	Industry	US\$495

Registrations postmarked after September 16, 2004	US Gov't & Academic	US\$475
	Industry	US\$575

The price includes: symposium, continental breakfasts, lunches, refreshments and a cocktail reception in the evening of the 16th immediately following the symposium. Please make checks payable to National Infrastructure Institute. Mail to NI² Center for Infrastructure Expertise, 100 Arboretum Drive, Suite 306, Portsmouth, NH 03801, USA

Accommodation and Venue

The Symposium will be held at the Greenbelt Marriott in Greenbelt, Maryland. Special symposium rates can be obtained online at marriott.com/property/propertyPage.mi?marshaCode=WASGB use group code NITNITA or directly at the hotel (tel.: +1-301-441-3700), refer to "Tunnel Safety" for the special Symposium rate of US\$149.00.



The NI² Center for Infrastructure Expertise is a not-for-profit applied research organization dedicated to improving the management and protection of the built infrastructure in the United States. The Center is funded through a grant from the U.S. Department of Commerce National Institute of Standards and Technology.

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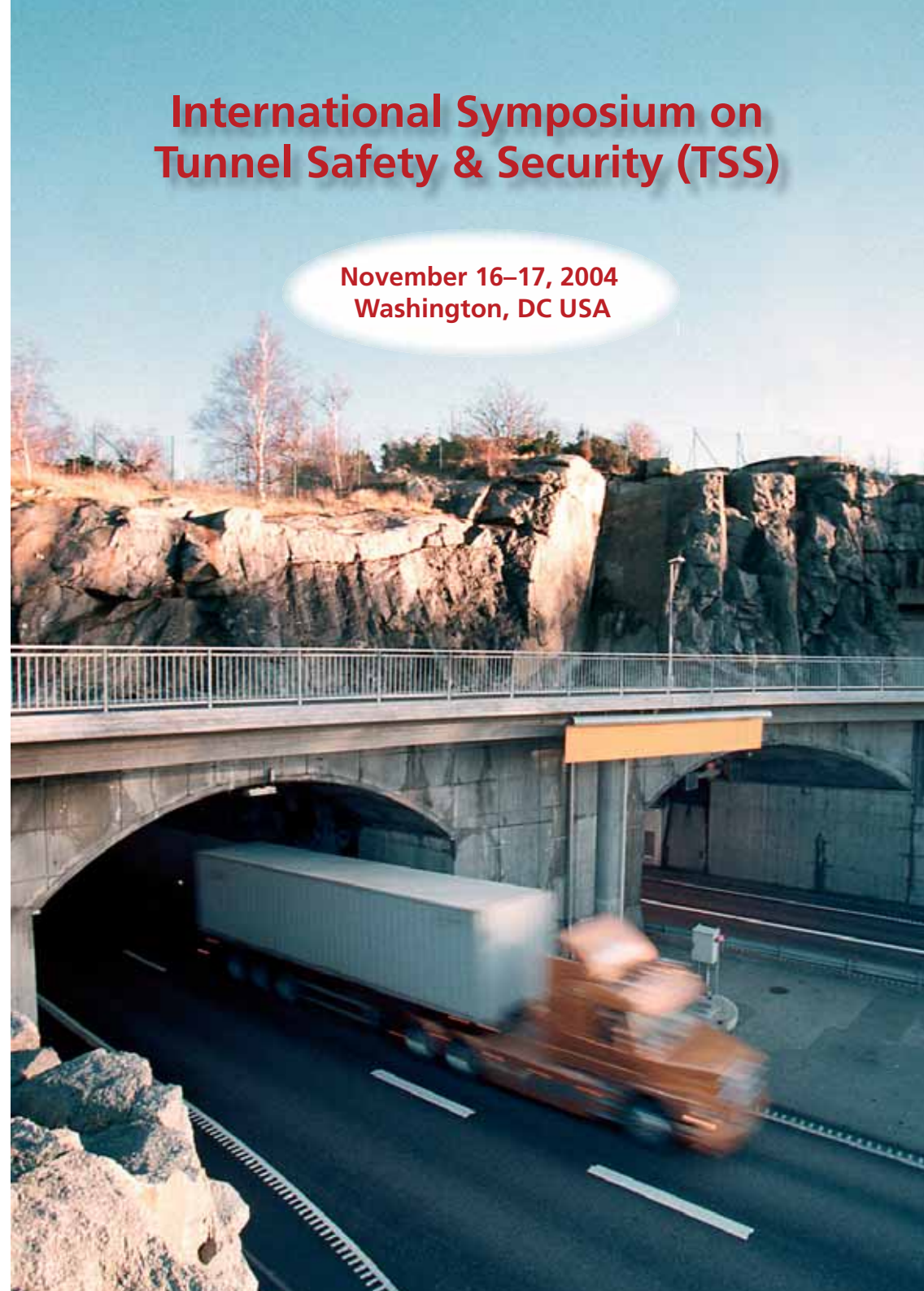


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International Symposium on Tunnel Safety & Security (TSS)

November 16–17, 2004
Washington, DC USA



International Symposium on Tunnel Safety & Security (TSS)

Tunnels play a significant role in the transportation network of most countries, including the United States. Whether used to bypass congested highways, rivers, or other terrain obstacles, tunnels create unique safety and security challenges in preventing, mitigating, and responding to fires, vehicle and hazardous materials accidents, and terrorism attacks.

Recent tunnel disasters and dramatic new research reinforces the need to protect tunnels and the people who use them. The NI² Center for Infrastructure Expertise and its co-sponsors will hold an **International Symposium on Tunnel Safety and Security** on **November 16 & 17, 2004** at the Greenbelt Marriott in the greater Washington, D.C. area, USA.

The Symposium will provide a forum for North American and European public and private experts to discuss, for the first time, the strategies, technologies, and procedures to significantly improve tunnel protection, safety and security.

The Symposium is jointly sponsored by the NI² Center, the National Institute of Standards and Technology (NIST), SP Swedish National Testing and Research Institute (SP), the US Department of Transportation Federal Highway Administration (FHWA), the National Association of State Fire Marshals (NASFM) and The Infrastructure Security Partnership (TISP).

For more details and symposium registration please visit the symposium website www.ni2cie.org/tunnels/tunnelmain.htm



Tuesday November 16th, 2004

- 8:00 a.m. Registration, Coffee & Pastries
- **Keynote Speakers**
- 9:00 a.m. Post 911 – The Challenge
James Burns, New York State Fire Administrator
- 9:20 a.m. The New European Union Directive on Road Tunnel Safety
Dir. Dr. Bernd Thamm, EU Commission, Belgium
- 9:40 a.m. Federal, State & Local Partnerships in Bridge & Tunnel Security
US Department of Transportation Federal Highway Administration
- 10:00 a.m. Break
- **Case Studies**
- 10:30 a.m. Tunnel Fires in Europe – What Have We Learned?
Dr. Haukur Ingason, Swedish National Testing & Research Institute
- 11:00 a.m. Howard Street Tunnel Fire, Baltimore MD, 2001
Dr. Kevin McGrattan, National Institute of Standards & Technology
- 11:30 p.m. Break and Lunch
- **Research Projects & Experimental Results**
- 1:00 p.m. Memorial Tunnel Tests
Sergui Luchian, Massachusetts Turnpike Authority
- 1:20 p.m. Investigation of Emergency Ventilation Strategies in Road Tunnels
Dr. Ahmed Kashaf, National Research Council of Canada
- 1:40 p.m. Large Scale Fire Tests – Unique Experimental Results
Anders Lönnemark, Swedish National Testing & Research Institute
- 2:00 p.m. Proposed Changes for Fixed Guideway Transit & Passenger Railway System Standards
William D. Kennedy, Parsons Brinckerhoff
- 2:20 p.m. Assessing the Threat of Tunnel Explosions: Current Capabilities
Keith S. Bradley, PhD., Lawrence Livermore National Laboratory
- 2:40 p.m. Break
- **Security Threat & Assessment**
- 3:00 p.m. Security Design in Metros
Gart Gee, Bay Area Rapid Transit (BART) Police Department, Chief
- 3:20 p.m. Subway Car Redesign for Safety & Security
Lieutenant, Steven M. Donahoo, New York Police Department, Counter-Terrorism Division
- 3:40 p.m. Threat Assessment & Vulnerability Analysis
Senior Special Agent, Harry Lapping, United States Secret Service
- 4:00 p.m. The PROTECT Early Warning Crisis Management System for Subway C/B Defense
Dr. David F Brown, Argonne National Labs
- 4:20 p.m. Close
- 4:45 p.m. Cocktail reception with assorted hors d'oeuvres

Wednesday November 17th, 2004

- 8:30 a.m. Coffee & Pastries
- **Human Behavior & Preparedness**
- 9:00 a.m. Human Response
Marieke H. Martens, M.Sc., TNO Human Factors
- 9:20 a.m. Nemiga Subway Station Crowd Rush Incident
Paul Wertheimer, Crowd Management Strategies
- 9:40 a.m. Tunnel Emergency Preparedness
Jonathan J. Greenawalt, Emergency Response Coordinator Kitsap County, (WA) Fire Marshals Office
- 10:00 a.m. Break
- **Incident Development & Prevention**
- 10:20 a.m. Tunnel Vulnerability Engineering Assessments
Daniel C. Wood, US Department of Transportation Federal Highway Administration
- 10:40 a.m. What Can the Service Do About Catastrophic Tunnel Fires?
Jay Fleming, Boston Fire Department
- 11:00 a.m. NFPA 502 – Standard for Road Tunnels
James Lake, National Fire Protection Association
- 11:20 a.m. The Nexus of Threat & Risk with Tunnel Investment
Michael Goode, Civil Engineering Research Foundation
- 11:40 a.m. FDS Modeling of Passenger Transit Vehicles
Phillip Z Tapper, PE, Schirmer Engineering
- 12:00 p.m. Lunch & Exhibits
- **Passive & Active Protection**
- 2:00 p.m. Passive Fire Protection – Sufficient or Complimentary to Active Systems?
Alfred Haack, STUVA
- 2:20 p.m. Security Technology Integration
Dr. Andrej Rucinski, University of New Hampshire
- 2:40 p.m. Break
- 2:50 p.m. Passive Fire Protection
Rene van den Bosch, Promat
- 3:00 p.m. Active Fire Protection
Mr Victor Gameiro, Marrioff
- 3:10 p.m. Active Fire Protection
David Leblanc, Tyco
- 3:20 p.m. Water Mist Fire Suppression - Austrian Road Tunnel Demonstration
Gerhard Schwarz, AQUASYS
- 3:30 p.m. Panel Discussion, Moderated by Donald P. Bliss, Director, NI² Center for Infrastructure Expertise
- 4:00 p.m. Close