

1st International Symposium on Freeway & Tollway Operations

PROGRAM OF SESSIONS

Divani Caravel Hotel

ATHENS, GREECE

JUNE 4-7, 2006

HELLENIC INSTITUTE OF TRANSPORTATION ENGINEERS



ATTIKI ODOS

IBTTA
International Bridge, Tunnel and Turnpike Association

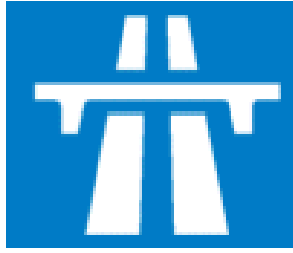
TRB

U.S. Department of Transportation
**Federal Highway
Administration**

CALIFORNIA
PATH



ATTIKES DIADROMES



Freeway
Expressway
Motorway
Autoroute
Autostrada
Autobahn
Αυτοκινητόδρομος



1ST INTERNATIONAL SYMPOSIUM ON FREEWAY & TOLLWAY OPERATIONS

ORGANIZED BY TRB FREEWAY OPERATIONS COMMITTEE (AHB20)

The Symposium brings together freeway and tollway operators, practitioners and researchers specializing in freeway, HOV, and tollway operations. The objectives of the Symposium are:

- ❖ To capture the state of the practice in freeway and tollway operations.
- ❖ To identify innovative strategies and techniques to improve the proactive management and control of traffic.
- ❖ To explore the potential benefits of using managed lanes, tolling, pricing, and other strategies to improve traffic operations on congested freeways.

VENUE AND COSTS

The Symposium will be held at the five-star Caravel Hotel (www.divanicaravel.gr) in central Athens. Room rates are 150€ (euro) for 1-bed rooms and 160€ for 2-bed rooms; prices include breakfast and taxes.

Registration fees are as follows:

- 200€ -- participant early registration (till March 30)
- 250€ -- participant regular registration
- 100€ -- presenter registration
- 100€ -- one day registration

Online registration at: www.citycongress.com/1_ISFO

Noon - 4:30 PM: TRB Freeway Operations Committee AHB20 mid-year meeting – *Illissos*

4:30 - 5:30 PM: Bus transfer from Caravel Hotel to Attiki Odos (Attica Tollway) Headquarters

5:30 - 8:00 PM: Technical Tour of Attiki Odos (Attica Tollway) Headquarters, Maintenance Yards and Traffic Management Center

8:30 - 11:00 PM Welcome reception at Caravel Hotel

Monday, June 5

10:00 AM - 12:30 PM → OPENING CEREMONY

Master of Ceremonies: **Bill M. Halkias**, CEO, Attikes Diadromes, SA

12:30 PM - 2:00 PM → HOSTED LUNCHEON & KEYNOTE ADDRESS

2:20-2:30 PM Opening of Distinguished Sessions: Panos D. Prevedouros, University of Hawaii, USA

2:30-4:00 PM (*Macedonia A*)

US Session: *Improving Mobility and Managing Congestion*

Moderator: Phil Masters, Ontario Ministry of Transport, Canada

Improving Mobility and Managing Congestion – Future Directions in the US, **Jon Obenberger**, FHWA

GoCalifornia: A Mobility Action Plan for California, 038, **Randell H. Iwasaki**, CALTRANS, USA

Northern Virginia Experiences with Public–Private Partnerships: I-95 and the Capital Beltway, **Mohammed Mirshahi**, Virginia DOT, USA

Turnpikes and Tollroads in Texas, 059, **Chris Poe**, Texas Transportation Institute, USA

4:15-5:45 PM (*Macedonia A*)

IBTTA Session: *Improving Policies, Practice and People*

Moderator: Patrick Jones, IBTTA

The Worldwide Mission of IBTTA, **Santiago Corral**, Autopista Vasco-Aragonesa, C.E.S.A and IBTTA President, Spain

A Focus on Safety at Florida's Turnpike Enterprise, **James L. Ely**, Florida's Turnpike Enterprise and IBTTA First VP, USA

A New World of Finance in Transportation, **Susan Buse**, North Texas Tollway Authority and IBTTA Second VP, USA

Spain's Via-T and Toll Road Interoperability in Europe, **Antonio Diez de Rivera**, ASETA and IBTTA International VP, Spain

Leveling the Playing Field for Success and Advancement in Transportation, **Mary Jane O'Meara**, Tobin Memorial Bridge, Massachusetts Port Authority and IBTTA Past President, USA

6:00-7:30 PM (*Macedonia A*)

ASECAP and EU Session: *Priorities in Europe*

Moderator: Bill M. Halkias, Attikes Diadromes SA, Greece

Introducing the Highways Agency Traffic Officer Service, **Rodney Brown** and **Robert Castleman**, Highways Agency, UK

Make TEN-T Motorways an Easy Way, **Jacques Boussege** and **Jean Mesqui**, ASFA, France

Towards Interoperability of Electronic Fee Collection Systems in Europe, **Philippe Hamet**, Direction Générale pour les Transports et l'Energie, Belgium

EU Orientations: ASECAP Point of View: A Brief Reflection, **Kalistratos Dionellis**, ASECAP, Belgium

Traffic Safety and Toll Roads. The expansion into Eastern Europe, **Tony Pearce**, International Road Federation, Switzerland

Formal business attire is suggested for the Monday program. Business casual (no neck tie) attire is suggested for the rest of the program.

TRACK 1: Expressway Management and Congestion Solutions

Location: Macedonia A

Ramp Metering

9:00 AM - 10:30 AM

Moderator: Khani Sahebjam, Minnesota DOT, USA

A Ramp-Metering Algorithm Based on Probabilistic Breakdown, 144

Peng Lin, Maryland State Highway Administration, USA, Lily Elefteriadou and Alexandra Kondyli, University of Florida, USA

Ramp Control Effectiveness in Minnesota: Long Term Perspectives and Recent Developments, 147

Panos G. Michalopoulos and John Hourdos, University of Minnesota, USA

Analysis of Benefits and Costs from Ramp Metering Implementation, 168

Virginia P. Sisiopiku, University of Alabama at Birmingham, USA

Freeway Speeds and Variable Speed Limits

11:00 AM - 12:30 PM

Moderator: Alexander Skabardonis, University of California-Berkeley, Institute of Transportation Studies, USA

Measuring the Impacts of a Variable Speed Limit System on a German Motorway, 109

Robert L. Bertini and Steven Boice, Portland State University, USA, and Klaus Bogenberger, BMW Group, Germany

Driver Behaviour and Safety Performance on Freeway Sections and Ramp Terminals, 136

Yasser Hassan, Carleton University, Canada

Driving Speed and the Interaction between Incident Response Plans and Speed on Attica Tollway, 141

Pantelis Kopelias, Fanis Papadimitriou, and Aggeliki Atsali, Attikes Diadromes, SA, Greece

Speed Limits and Speed Choices: Planning Perspectives and Drivers' Attitudes, 183

Petros Vythoulkas, Vasilios Psarianos, and Pavlos Chorianopoulos, National Technical University of Athens, Greece

Congestion and Bottlenecks

1:30 PM - 3:00 PM

Moderator: Rodney Brown, Highways Authority, UK

Optimizing the Existing Infrastructure by Controlling Congestion and Traffic Flow on a Heavily Trafficked Motorway: The Successful Challenge of ASF, 145

Mathieu Lisbonis, ASF, France

Framework for Analysis of Freeway Bottlenecks, 169

Alexander Skabardonis, University of California, Berkeley, Institute of Transportation Studies, USA

Advanced Motorway Traffic Modeling, Simulation, Surveillance and Control Strategies, 355

Markos Papageorgiou, Yibing Wang, Ioannis Papamichail, and Elias Kosmatopoulos, Technical University of Crete, Greece, and Apostolos Kotsialos, Durham University, UK

The Empirical Assessment of Traffic Operations: What We Have Learned about Highway Congestion, 182

Pravin Varaiya, University of California, Berkeley, USA

Traffic Management Tools and Centers

3:30 PM - 5:00 PM

Moderator: Panos C. Papadakos, NAMA Consulting Engineers and Planners SA, Greece

Benefit-Cost Analysis of the SMART SunGuide Freeway Management Operations in Fort Lauderdale, Florida, 123

Steve Corbin and Dong Chen, Florida DOT, USA, Mohammed Hadi and Chengjun (Jim) Zhan, Florida Int'l University, USA

An Artificial Neural Network Model for Evaluating Workers' Performance at Tollbooths, 125

Marcelo Leismann de Oliveira and Helena Beatriz Bettella Cybis, Federal University of Rio Grande do Sul, Brazil

GIS for Management and Monitoring: The Example of Attica Tollway, 139

George Kiouisis and Georgia Gania, Attikes Diadromes, SA, Greece, and Athanasios Doganis, Terra Ltd., Greece

... session continued across →

TRACK 2: Tollway Development, Tolling Operations, Technologies and Issues

Location: Macedonia B

Open Road Tolling – IBTTA Session

9:00 AM - 10:30 AM

Moderator: Manos Petousis, Attiki Odos, SA

Cross Israel Highway Toll Road: The Technology, 226

Ehud Savion, Derech Eretz Highways, Israel

Austria's DSRC System for Heavy Trucks, 2110

Christian Trattner, ASFINAG, Austria

Autopista Central, Santiago, Chile: Paving the Road for ORT Second Generation

Salahdin Yacoubi, Autopista Central, Chile

HOT Lanes and Congestion Charging – IBTTA Session

11:00 AM - 12:30 PM

Moderator: Bill Halkias, Attikes Diadromes, SA, Greece

91 Express Lanes: A Decade of Innovation and Leadership, 2112

Gary Hausdorfer, Cofiroute USA, USA

High Occupancy Toll Lanes: Innovations and Performance in Minnesota, 433

Randy Halvorson, Minnesota Department of Transportation, USA

Katy Freeway HOT Lanes, 2114

Ed Regan, Wilbur Smith Associates, USA

Road User Charging Systems and Concerns

1:30 PM - 3:00 PM

Moderator: Jean Harito, Attikes Diadromes, SA, Greece

Risk Management in Road User Charging, 224

Josef A. Czako, Kapsch TrafficCom AG, Austria

Technologies for Road User Charging: Matching Policy

Requirements with Charging Technology Requirements, 252

Zeina Nazer, Hyder Consulting, UK, and Andrew Pickford, Transport Technology Consultants, UK

Investigation of Application of Vignettes as Alternative Toll

Payment Mechanism in Greece - The Case Study of Egnatia Odos Motorway, 254

Panos C. Papadakos and Konstantinos Fousekis, NAMA Consulting Engineers and Planners SA, Greece

Attica Tollway ETC: Making the Difference - Methodology and Tools for the Continuous Improvement of the ETC Subscription

Programs and Services Offered by a Modern Urban Tollway, 276

Frank Thibaut and Anna Petridou, Attikes Diadromes SA, Greece, and Haralambos Malimoglou, Invision Consulting SA, Greece

Roundtable Panel - 3:30 PM - 5:00 PM

Speeding and Speed Limits: Are Drivers out of Control?

Moderator: Pete Briglia, Puget Sound Regional Council, USA

Phil Masters, Ontario Ministry of Transportation, Canada

Robert Bertini, Portland State University, Oregon, USA

Robert Castleman, Highways Agency, Birmingham, UK

Jurg Sparmann, Hessisches Landesamt für Straßen-und Verkehrswesen, Weisbaden, Germany

Xiaoduan Sun, Beijing Technological Institute, Beijing, China, and Louisiana State University, Louisiana, USA

Tools to Facilitate Operators' Decisions in Freeway and Tollway Traffic Control Centres, 149

Steve Morello, Egis Projects, France, and Jean-Marc Morin, ISIS, France

TRACK 3: Technologies and Issues for Operations and Control Centers

Location: *Kozani*

Integrated Toll and Traffic Management

9:00 AM - 10:30 AM

Moderator: George Kiousis, Attikes Diadromes, SA, Greece
Attiki Odos Integrated Toll and Traffic Management System - The Next Generation, 317

Mara Bullock, Ron Allen, and Scott Stewart, IBI Group, Canada, and Jannis Nassoulis, Attikes Diadromes, SA, Greece

Integrating Tolling Systems and Freeway Management Systems, 361

Christopher Poe, Texas Transportation Institute, USA

Joint Traffic Operations in Israel, 380

David Traub-Werner, IBI Group, Israel, Talia Yehudai and Natalie Damti, Israel Public Work Department, Iroads, Israel, and Eyal Gutman, Israel Traffic Police, Israel

Freeway and Tollway Traffic Simulation

11:00 AM - 12:30 PM

Moderator: Panos D. Prevedouros, Univ. of Hawaii at Manoa
A Simulation-Based Assessment of Space-Constrained Toll Plaza Design: A Case Study in the Submerged Artery of Thessaloniki, Greece, 356

Panagiotis Papaioannou and N. Ntassiou, University of Thessaloniki, Greece, and Y. Stogios, Delcan Corp., Canada

Driver's Behaviour Model for Toll Plaza Operations in Microsimulation Applications, 379

Alexandre Torday, Jaime Barcelo, and Josep Perarnau, Transport Simulation Systems, Spain

Attica Tollway Optimal Electronic/Manual Toll Lane Allocation with Simulation, 385

Juanita Wolfgramm and Panos Prevedouros, Univ. of Hawaii at Manoa, USA, and Frank Thibaut, Attikes Diadromes SA, Greece

Evaluation of Two Recent ITS Applications on Motorways-Simulation Studies of Traffic Responsive Shoulder Lane Usage and Noise Reduction, 387

Martin Fellendorf and Kurt Fallast, Technical University Graz, Austria, and Peter Mohl, PTV AG, Karlsruhe, Germany

Roundtable Panel - 1:30 PM - 3:00 PM

Proactive Management

Moderator: Martin Stone, Tampa-Hillsborough Expressway Authority, USA

Freeway Operations: Looking in the Rear-View Mirror

Joe McDermott, McDermott Associates, USA

Operation of Variable Message Signs for Effective Traffic Management

Conrad L. Dudek, Texas A & M University, USA

Recipes for Proactive Management and Improvement

Abdul-Rahman Hamad, Parsons International Ltd., Qatar

Sensors for Automated Data Collection

3:30 PM - 5:00 PM

Moderator: Jeffrey Randall, Siemens ITS, USA

Machine Vision Sensors for Expressway Management: Strengths and Weaknesses Revealed, 340

Lawrence A. Klein, California, USA

Attica Tollway Automated Incident Detection with Surveillance Equipment, 357

Kostas Papandreou, Pantelis Kopelias, and Vili Vegiri, Attikes Diadromes, SA, Greece

Life Cycle Cost Benefit Analysis of Non-Intrusive Freeway Detection Based on Capital Asset Pricing Model, 373

Sini Stojicic, EIS Inc., Canada

TRACK 4: Managed Lanes (ML)

Location: *Pella*

Roundtable Panel - 9:00 AM - 10:30 AM

Early Bird: Agency Approaches to Congestion Management

Moderator: Jon Obenberger, FHWA, USA

Congestion Management Process – Experiences in US Metropolitan Areas

Robin Mayhew, FHWA, USA

Sources of Long-Term Project Sustainability and Benefit

Capture in Tollways and Highway PPPs, 415

Mark Brown, Halcrow, UK

Congestion Strategies in Puget Sound Region, Seattle, WA

Charles Howard, Puget Sound Regional Council, USA

Moving Forward Major Changes in the Attica Region: The Case of Attica Tollway, 435

Jean Harito, Eleni Tyrogianni and Michael Bartzis, Attikes Diadromes, SA, Greece

Developing and Designing Freeways for the 21st Century

11:00 AM - 12:30 PM

Moderator: Ray Krammes, FHWA, USA

Managed Lane Design and Development – Opportunities and Challenges in the U.S.

Charles Fuhs, Parsons Brinkerhoff, USA

Developing and Designing Managed Lanes in Seattle, WA

Craig Stone, Washington DOT, USA

Congestion Strategies in England - HOV and Managed Lanes

Patrick Sewell, Highways Agency, UK

Driver Decision Making Needs and Traffic Control for Managed Lanes

Beverly Kuhn, Texas Transportation Institute, USA

ML Strategies Enhancing Freeway Performance

1:30 PM - 3:00 PM

Moderator: Margaret Moore, Texas DOT, USA

Managed Lanes - US Experiences

Jessie Yung, FHWA, USA

The Houston HOT Lane Experience, 419

Mark Burris, Texas A&M University, USA, Bill Stockton, TTI, USA,

and David Fink, Texas DOT, USA

A Cost-Benefit Assessment of a Managed Lane Operation on an Urban Motorway, 420

Simon Cohen, INRETS, France

ML Tools, Deployment and Evaluation

3:30 PM - 5:00 PM

Moderator: Dan Baxter, DKS Associates, Inc., USA

Assessment of High Occupancy Lane Performance in California, 407

Hamed Benouar and Gabriel Gomes, University of California,

Berkeley, Institute for Innovative Transportation, USA

Introducing Express Toll (Managed) Lanes in a City without a Toll Road, 418

Mark Burris, Texas A&M University, USA, and Ginger Goodin and

Tina Collier, Texas Transportation Institute, USA

Guidance and Tools for Managed Lanes: Where to Go for Help, 443

Beverly Kuhn, Texas Transportation Institute, USA

Technology for Managed Lanes, 460

Christopher Poe, Center for Toll Research, TTI, USA

TRACK 1: Expressway Management and Congestion Solutions

Location: Macedonia A

Travel Time Estimation and Dissemination

9:00 AM - 10:30 AM

Moderator: Fanis Papadimitriou, Attikes Diadromes, SA, Greece
Motorway Travel Time Estimation by Switching Algorithms and Toll Data Integration, 106

Anis Ben Aissa, Nour-Eddin El Faouzi, and Olivier De Mouzon, Transport and Traffic Engineering Laboratory, INRETS-ENTPE, France, and Jacques Sau, University Claude Bernard, France

Improving Travel Time Estimation for Freeway Traffic Management and Traveler Information Systems, 110

Robert L. Bertini and Sirisha Kothuri, Portland State University, USA

Travel Time Information via VMS in Athens, 167

Dimitris Sermpis and Babis Charilaos, Greece, and Theofilis Ioannis, Athens Traffic Management Center, Greece

Incident Management

11:00 AM - 12:30 PM

Moderator: Patrick Jones, IBTTA, USA

Incident Management Framework for Egnatia Odos, 142

Konstantinos P. Koutsoukos, Egnatia Odos, SA, Greece

Dynamic Traffic Assignment Applications for Incident Management, 150

Kyriacos C. Mouskos, CTL Cyprus Transport Logistics, Ltd., Cyprus, Virginia P. Sisiopiku and Xuping Li, University of Alabama at Birmingham, USA, Camille Kamga, City University of New York, USA and Curtis Barrett, Vista Transport Group, Inc., USA

Incident Management in Road Concession Projects: The Case of the Attica Tollway, 158

Kostas Papandreou, Pantelis Kopelias and Thanassis Prokos, Attikes Diadromes, SA, Greece

Operations in Emergencies and Special Events

1:30 PM - 3:00 PM

Moderator: Joseph McDermott, McDermott Associates, USA
Prediction-based Guidance for Emergency Freeway Operations: DynaMIT Case Studies, 103

Constantinos Antoniou, Ramachandran Balakrishna, and Moshe Ben-Akiva, MIT, USA, and Haris N. Koutsopoulos, Northeastern University, USA

AGIR – A Decision Support Tool for Geneva Ring-road Traffic Management during Important Events, 108

Emmanuel Bert, Swiss Federal Institute of Technology, EPFL, Switzerland, David Beni, Arx iT Consulting, Switzerland, Alexandre Torday, Transport Simulation Systems, Spain, and Franco Tufo, CITEC, Switzerland

Disaster Recovery Planning for ITS Applications, 121

Steve Corbin, Florida DOT, USA, and Robert Edelstein, DMJM Harris Inc., USA

Managing Operations for Large Scale Events: The Case of Attica Tollway during the 2004 Olympic Games, 177

Frank Thibaut, and Fanis Papadimitriou, Attikes Diadromes, SA, Greece

TRACK 2: Tollway Development Tolling Operation, Technologies and Issues

Location: Macedonia B

Issues with Tolling and Financing Methods

9:00 AM - 10:30 AM

Moderator: Frank Thibaut, Attikes Diadromes, SA, Greece

In Search of a Contractual Architecture for Tolling Service in Europe: The Cesare III Project, 211

Claude Bidaud, Autoroutes du sud de la France, France

Removing the Toll Bar - What about the Banks?, 226

John Deighton, Halcrow Group, UK

The U.S. Muni-Model versus the International PPP-Concession for Funding New Transport Infrastructure, 253

Nicolopoulos Adam, UBS, USA

Traffic and Revenue Forecasting for Greek PPP Projects, 281

Tony van Emst and Rob Godley, Halcrow Group, Ltd., UK, Kostas Papandreou and Fanis Papadimitriou, Attikes Diadromes, SA, Greece

Toll Pricing, Tendering, and Forecasts

11:00 AM - 12:30 PM

Moderator: Jessie Yung, FHWA, USA

Choosing the Right Pricing Policy for an Urban Modern Tollway, 246

Dimitrios Mandalozis, and Kostas Gogos, Attikes Diadromes, SA, Greece, and Haralambos Malimoglou, Invision Consulting, SA, Greece

Best Practice - Implementation and Operation of the Austrian Tolling System, 251

Gottfried Binder, Raiffeisen Informatik Consulting GmbH, Austria

Key Drivers to ETC Development, 262

Jean Pohnu, Transroute International, France

Managing Risks Associated with Traffic and Revenue

Forecasting for Tolled Highway Infrastructure, 264

Keyvan Rahmatabadi, Faber Maunsell, UK

Roundtable Panel - 1:30 PM - 3:00 PM

Past, Present and Future of Greek Motorways: How Far Have We Gone, and How Much Is Left to Go?

A distinguished panel of public and private sector officials debate issues related to highways in Greece.

Moderator: Senator **Aris Stathakis**, National Road Safety Committee

Athanassios Kouloumbis, Secretary General for PPP Projects, Greek Ministry of Public Works

Leonidas Korres*, Special Secretary for PPP Projects, Greek Ministry of Economy

Georgios Ganotis, Former Secretary General for PPP Projects, Greek Ministry of Public Works

Dimitrios Koutras, President, Attiki Odos SA (Attica Tollway)

Panagiotis Delimitos, President, TEO SA (Greek Toll Roads)

Apostolos Goulas*, President, Egnatia Odos SA (Egnatia Tollway)

(*) To be confirmed

Presentations on this session will be in Greek.

TRACK 3: Technologies and Issues for Operations and Control Centers

Location: *Kozani*

Technologies in the Service of Operations, Part 1

9:00 AM - 10:30 AM

Moderator: Abdul-Rahman Hamad, Parsons International Ltd., Qatar
Communications Technology – Mission Critical or Critically Flawed? How the UK Highways Agency Traffic Officer Service Gets the Maximum Operational Advantage from Control Centres, 301
Rick Abbotts, RAL Associates, Ltd., UK
Serbian Pay Toll System Integration in ITS, 304
Vladan Batanovic, Institute Mihailo Pupin, Aleksandar Šenborn, and Gordana Radivojević, Serbia and Montenegro
Selection of Operation Parameters of Service Patrol Programs, 322
Steve Corbin Florida DOT, USA, Mohammed Hadi, Florida International University, USA

Technologies in the Service of Operations, Part 2

11:00 AM - 12:30 PM

Moderator: Lawrence Klein, USA
Information Exchange Agent: A Clearing House to Manage ETC Interoperability between Toll Operators in Ireland, 348
Emmanuel Michaux, Egis Projects, France
Satellite Based System Integration for Traffic Control Centers, 365
José Pedro Rodrigues, Paulo André, and Jorge Cunha, Auto-Estradas do Atlântico - Concessões Rodoviárias de Portugal SA, Portugal
Toll Plaza Design Guidelines, 370
George Soilemezoglou and Demetrios Katsios, NAMA Consulting Engineers and Planners SA, Greece
Satellite-Based, Intelligent and Flexible - Solution and Results of Road Pricing in the Puget Sound Region, 337
Stefan Höpfel, Siemens AG, Germany

Notable Examples of International Freeway Operations

1:30 PM - 3:00 PM

Moderator: Kostas Papatheou, Attikes Diadromes, SA, Greece
Effect on Freeway Performance by a New Bus Line Operating Adjacent to It, 130
Gabriel Gomes and Hamed Benouar, University of California, Berkeley, Institute for Innovative Transportation, USA
M42 Active Traffic Management: Innovation in Motorway Management: An English Example, 131
David Grant, Highways Agency, UK
Freeway Operation in Germany - Experiences in Hessen, 171
Jürg M. Sparmann, Hessisches Landesamt für Straßen-und Verkehrswesen, Germany
Characteristics of Traffic Flow on Freeways in China: A Case Study of Jingjintang Expressway, 175
Xiaoduan Sun, Yongsheng Chen, Yulong He, and Jiangbi Hu, Beijing University of Technology, China

TRACK 4: Expressway and Tollway Development and Issues

Location: *Pella*

Large Bridge and Toll Highway Projects

9:00 AM - 10:30 AM

Moderator: Kostas Drimeris, Attiki Odos, SA, Greece
One Year of Operation and Maintenance of the Rion -Antirion Bridge, 428
Christophe Pelissie du Rausas, Gefyra SA, Greece
Attica Tollway: Characteristics and Forecasts of a New Freeway, 463
Anna Politou, Georgia Gania, Attikes Diadromes SA, Greece, and Panos Prevedouros, UH Manoa, USA
Value Engineering for Work Zone Traffic Management and A Daring Closure of One of the Busiest Freeways in North America, 472
Yannis Stogios, Delcan Corp., Canada, and Goran Nikolic, Ontario Ministry of Transportation, Canada
Tampa's Elevated Reversible Expressway - Innovations in Urban Highway Operations and Toll Collection, 474
Martin Stone, Tampa-Hillsborough Expressway Authority, USA

Concerns with Systems, Decisions and Costs

11:00 AM - 12:30 PM

Moderator: Yannis Handanos, President of Hellenic Institute of Transportation Engineers, Greece
Legal Liability for Intelligent Transportation Systems Operations, 405
Daniel H. Baxter, DKS Associates, Inc., USA
Beware the Pitfalls of Open Road Tolling, 427
Edward J. DeLozier, E-470 Public Highway Authority, USA
The Impact of Heavy Vehicles on Freeway Maintenance Cost, 412
Maria P. Boilé, Rutgers University, USA

Safety Issues

1:30 PM - 3:00 PM

Moderator: Pantelis Kopelias, Attikes Diadromes SA, Greece
Freeways and Railways Adjacent Location: Operational and Safety Issues, 402
Michael Anastasakis, ERGA OSE, SA, Greece, and Kostas Drimeris, Attiki Odos, SA, Greece
Application of Multiple Tunnel Safety Standards during Construction and Operation, 413
Xavier Bourdais, Scetauroute, France, and Jannis Nassoulis, Attikes Diadromes SA, Greece
Influence of Drivers Lane Changing Behaviour on Highways Performance and Safety Level, 478
Alexandre Torday, Transport Simulation Systems, Spain, and Pere Sauret, Real Automóvil Club de Catalunya, Spain
Safety in Tunnel Design and Operation - Case Study, 484
Frederic Walet, SCETAUROUTE, France

Closing Session: Expressway and Tollway Issues and Future Directions

3:30 PM - 5:00 PM – *Macedonia A*

Moderator: Richard Cunard, Transportation Research Board, USA

Freeway Management, Jon Obenberger (FHWA and AHB20, TRB)

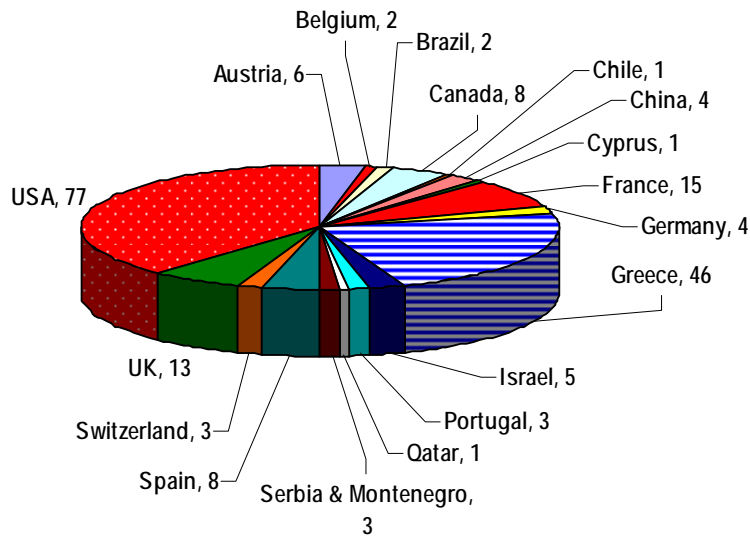
Traffic Control Centers and ITS, Phil Masters (Ontario Ministry of Transport and AHB20, TRB)

Freeway Analysis Tools, Panos Prevedouros (University of Hawaii at Manoa and AHB20, TRB)

Tolling and Tollway Issues, Bill Halkias (Attikes Diadromes, SA, and AHB20, TRB)

Institutional Issues, Dan Baxter (DKS Associates, Inc. and AHB20, TRB)

PRESENTATION AUTHORS BY COUNTRY:



TUESDAY AND WEDNESDAY PROGRAM AT A GLANCE

Tuesday, June 6, 2006						
Time	Track 1: Expressway Operations and Congestion	Track 2: Tollway Development, Tolling Operations and Issues	Track 3: Technologies and Issues for Operations and	Track 4: Managed Lanes	Other	
8-9 AM	Registration (ends at 12:00 noon)					
9-10:30 AM	Ramp Metering	Open Road Tolling - IBTTA	Integrated Toll and Traffic Management	Early Bird: Agency Approaches to Congestion Management	Vendor exhibits and demonstrations	
10:30-11 AM	coffee break					
11-12:30 PM	Freeway Speeds and Variable Speed Limits	HOT Lanes and Congestion Charging - IBTTA	Freeway and Tollway Traffic Simulation	Developing and Designing Freeways for the 21st Century		
12:30-1:30 PM	lunch break					
1:30-3 PM	Congestion and Bottlenecks	Road User Charging Systems and Concerns	Proactive Management	ML Strategies Enhancing Freeway Performance		
3-3:30 PM	coffee break					
3:30-5 PM	Traffic Management Tools and Centers	Speeding and Speed Limits: Are Drivers out of Control?	Sensors for Automated Data Collection	ML Tools, Deployments and Evaluation		
7:30-midnight	Dinner and social time by the Acropolis					
Wednesday, June 7, 2006						
Time	Track 1: Expressway Operations and Congestion	Track 2: Tollway Development, Tolling Operations and Issues	Track 3: Technologies and Issues for Operations and	Track 4: Expressway and Tollway Development and	Other	
9-10:30 AM	Travel Time Estimation and Dissemination	Issues with Tolling and Financing Methods	Technologies in the Service of Operations, Part 1	Large Bridge and Toll Highway Projects	Vendor exhibits and demonstrations	
10:30-11 AM	coffee break					
11-12:30 PM	Incident Management	Toll Pricing, Tendering, and Forecasts	Technologies in the Service of Operations, Part 2	Concerns with Systems, Decisions and Deployments		
12:30-1:30 PM	lunch break					
1:30-3 PM	Operations in Emergencies and Special Events	Past, Present and Future of Greek Motorways (in Greek)	Notable Examples of Int'l Freeway Operations	Safety Issues		
3-3:30 PM	coffee break					
3:30-5 PM	Closure of the professional and scientific program of the Symposium					

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