Towards an Intelligent Transport System

Proceedings of the First World Congress on Applications of Transport Telematics and Intelligent Vehicle–Highway Systems
A Cost Study of IRTE Scenarios Based on ARENA-Test Site West Sweden
V.M. Lukasic, G. Lind

Q5
Sponsor: ERTICO S.C.
Role of Traffic Models in the IVHS/ATT Context
Y. Gardès
Simulator Experiments and Modelling to Determine the Influence of Route Guidance on Drivers' Route Choice
P. Bonsall
Evaluation of Urban Traffic Control Systems
J.B. Lesort, P. Olivero
Evaluating the Impact of IVHS/ATT Schemes
D.I. Robertson, M.J. Schofield, S. Tarry
An Evaluation Tool for User Information Systems on Motorways
M. Chevreuil, J.P. Boulet, C. Caubet
An Assessment of the Effects of the Trondhein Toll Ring on Travel Behaviour and the Environment
J. Polak, S. Meland

S TRAFFIC MANAGEMENT AND TELEMATICS APPLICATIONS ON THE TRANS-EUROPEAN ROAD NETWORK

S1 Traffic Management on the Trans-European Road Network
Sponsor: EC/Transport Telematics Programme (DRIVE)
Traffic Management and Information to Road Users
F. Fernandez Alonso
Towards A Better Use and Less Congestion – The Traffic Management Program for the Primary Road Network in the Netherlands
T. Lohman, M. Coëmet
Traffic Management Policy in France
T. Vexiau
Guidelines for Traffic Management Implementation on the Trans-European Road Network
O. Waldner
Policy, Innovation and Implementation Strategies at the European Road Information Centre (ERIC)
J.H. Linssen
S2 Telematics Applications on the Trans-European Road Network
Sponsor: EC/Transport Telematics Programme (DRIVE)

Implementation of Traffic Management and Control on the Autobahns in Germany
J. Behrendt

Flanders’ Contribution to the TERN
L. Aerts, M. de Klerck

Telematics Application in Scotland to Improve the Management of Traffic on the Trans-European Road Network
N.B. McKenzie

Application of ATT for Managing the Traffic on the Trans-European Road Network (TERN)
P. Decoster

I INTER-URBAN AND RURAL TRAFFIC MANAGEMENT

I1 Overview and Detection & Implementation of Traffic Management Strategies Relating to Safety & Congestion
Sponsor: EC/Transport Telematics Programme (DRIVE)

Integrated Inter-urban Traffic Management (Area 4 Report)
G. Fisher

A Comprehensive Approach of Traffic Safety in Adverse Weather and Road Conditions
A.P. de Vos

Weather Related Traffic Management
M. Aron, M. Ellenberg, P. Fabre, P. Veyre

ROSES Central Monitoring System
W.F.M. van der Heijden, R. Haandrikman

Driver Information and Early Warning Systems in Case of Dangerous Road Conditions
R. Opitz, A. Hislop

The Safety Impact of ATT Systems: What have we Learned from DRIVE II
O.M.J. Carsten, M. Draskoczy

I2 Detection and Implementation of Traffic Management Strategies Relating to Safety and Congestion (Continued)
Sponsor: EC/Transport Telematics Programme (DRIVE)

Evaluation of the INVAID AID System in a Motorway Environment
S. Guillén, J.J. Martinez, P. Chauvert, J.M. Morin, M. Renard, A. Dekoninck, L. Cypers, B. Lepers
Image Processing Techniques for Traffic Surveillance on the Antwerp Ring Motorway (Belgium) as Part of the EURO-TRIANGLE Project

L. Cypers, R. Tegenbos, F. Lemaire

Safety Effects of Incident Warning Systems

S. Franzen, R. Kuimala

Experimentation of AID Algorithms in a Real Environment

M. Cremer, E. Morello, G. Sala, S. Schrieber


X. Zhang, J.M. Blosseville, F. Busch, L. Cypers, S. Guillén

I3 Inter-Urban Network Modelling for Traffic Management

Sponsor: EC/Transport Telematics Programme (DRIVE)

EUROCOR and A10-WEST, Coordinated Ramp-Metering near Amsterdam

F. Middelham, W.J. Schouten, J. Chrisoulakis, M. Papageorgiou

H. Haj-Salem

DYNA: A Real-Time Monitoring and Prediction System for Inter-Urban Motorways

M. Ben-Akiva, E. Cascetta, H. Gunn, S. Smulders, J. Whittaker

The DYNA On-line Origin-Destination Estimation and Prediction Model

D. Inaudi, E. Kroes, S. Manfredi, S. Toffolo

EURO-TRIANGLE: Pilot Application of Advanced Traffic Management in Flanders (B), Wallonia (B) and North-Rhine Westphalia (G)

R. Tegenbos

Models for Monitoring the Current and Expected Traffic State on Inter-Urban Motorways

B. van Arem, M.J.M. van der Vlist, M. Muste, J.C.C. de Ruiter, S.A. Smulders, M.S. Dougherty

I4 The Strategic Inter-Urban Network Management Experience

Sponsor: EC/Transport Telematics Programme (DRIVE)

The SOCRATES Services Provided by the SOCRATES Information Centre in RHAPIT

H. Kirschfink, G. Gumprecht

A Dynamic Traffic Assignment Model for Real-Time Applications

E. Cascetta, M. Di Gangi, K. Lindveld, P. Mijjer

Development and Evaluation of Protocols in a Communication Architecture for ATT Networks and Network Simulation

G. Brasche, H. Winkel, J.V.D. Wel

Driver Response to VMS - QUO VADIS Investigations

P. Bonsall
Control Strategies for Variable Message Signs
*M. Papageorgiou, P. Gower, A. Messmer, J. M Morin*

The Use of VMS for Strategic Network Management - The PLEIADES Experience
*A. Hobbs, I. Fraser, B. Castleman, P. Still*

15 Modelling and Integration

*Sponsor: PIARC/PTRC/ITE*

A Multi-model Approach with Fuzzy Reasoning for Traffic State Estimation and Incident Detection on Motorways
*F. Busch, M. Cremer, A. Ghio, T. Henninger*

Integration of Methods for Monitoring Motorway Traffic - First Results in Ile-de-France
*S. Cohen*

The Development of Knowledge-based VMS Systems
*R. Brown, M. Schofield, I. Routledge*

Fiber Optics in Active Management Systems
*S. Teral*

Development and Implementations of the IMPACTS Traffic Image Processing System
*N. Hoose*

Radar for Automatic Incident Detection and Traffic Analysis:
The Beatrics Sensors
*D. Lion*

16 Organisation and Strategies

*Sponsor: PIARC/PTRC/ITE*

Sowing the Seeds for Rural IVHS in Minnesota
*M. Sobolewski, C. Wilson, N. Fisher*

The Role of ATT for the Advancement of Road Traffic Management in Sweden
*L.E. Sjöberg, K.E. Lang, H. Torring*

Road Pricing-Position of the Motorist and Tax Payer
*G. Weich*

CORALY: Motorway Traffic Management on a Peri-Urban Network
*P. Laborie*

The WHIST Project: Walloon Highway Information System for Traffic
*Y. Loyaerts*
17 Integrated Traffic Management and Driver Information on an Inter-Urban Network

Sponsor: EC/Transport Telematics Programme (DRIVE)

Towards Integration - The MELYSSA Corridor
J. Nouvier, R. Schult, M. Chevreuil, D. Gazal, J. Laprévotte

METACOR: A Macroscopic Modelling Tool for Urban Corridor
H. Haj-Salem, N. Elloumi, S. Mammar, M. Papageorgiou,
J. Chrisoulakis, F. Middelham

Multi-modal, Regional Traffic Information System in North Rhine-Westphalia
H.W. Schneider, U. Ziegler

Assessing ATT Market Potential
F. Filippi, P. Delle Site, M. Lepore, M. Marciani, L Pickup,
A. Piscitelli

18 Integrated Traffic Management and Driver Information on an Inter-Urban Network (Continued)

Sponsor: EC/Transport Telematics Programme (DRIVE)

European Co-operation on Traffic Management Limits and Benefits from the Pilot Project PLEIADES
D. Fau, J.M. Hotteau, T. Sullivan

Concrete Application of Road Information Strategies VMS in Ile-de-France - Detailed Quantitative Evaluation and First Glimpse of Socio-Economic Benefits
V. Motyka, B. James

Network-Wide VMS - Performance Evaluation within the QUO VADIS Project
S. Tarry, L. Jensen, N. McKenzie

Using Individual Measurements of Traffic on Motorways
M. Aron, E. Seddiki, L. Hau-chow Wah

Aid-to-Decision for Motorway Network Management: The Expert System OPERA
J.M. Morin, P. Ricquez, J.F. Gabard

19 Operations and Experimentations

Sponsor: PIARC/PTRC/ITE

STORM - Stuttgart Transport Operation by Regional Management
N. Otten

Traffic Management during Heavy Traffic Periods: Operation PALOMAR
F. Jacquart, J. Dürr
Variable Message Signs: The French Approach in the European Context

J. Nouvier, J. Villanneau

COMPANION Field Test: Testing of New System Modules for Traffic Guidance Technology

G. Krause

Traffic Information, a Tool for Road Management:
The SIRIUS Example in the Paris Region

V. Motyka

E FREIGHT AND FLEET OPERATIONS

E1 Overview and System Architecture

Sponsor: EC/Transport Telematics Programme (DRIVE)

Applications for Freight and Fleet Management in the Advanced Transport Telematics Programme (Area 6 / Freight and Fleet Management)

G. A. Giannopoulos, K. Moller

Towards Integrated Freight and Fleet Management Systems: Key Results from IFMS

M. Both, H. Schmeck

General Evaluation Framework to Assess the Impacts of ATT - Applications in Freight Transport

K. Verweij, R. Brugge, F. Ballhaus

E2 Hazardous Goods Monitoring and Emergency Response Applications

Sponsor: EC/Transport Telematics Programme (DRIVE)

Procedures and Messages for Hazardous Goods Control Transport on Road - A Proposal for Standardisation

E. Angeleri, D. Matteucci

ARTIS-7: First Results of a Hazardous Goods Transport Monitoring System from a Field Trial


N. Theophilosopoulos

The Integration of Hazardous Goods Monitoring and Control Systems for Overall Logistical Control and Quality Management of Chemical Substances

The Frame Consortium

The QUARTET/STORM Emergency Call System for Automatic Data Transmission in Case of Accidents

G. Junge, W. Huber, N. Ayland, E. Morello
Hazardous Goods Fleet Management and Traffic Control Co-operative
Data Exchange: Project PORTICO
*M. Percival, A. Monteiro*

**E3  Results and Pilot Applications**

**Sponsor: EC/Transport Telematics Programme (DRIVE)**

Mobile Data Communication (MDC) and Electronic Data Interchange (EDI) Applications in Small and Medium Size Road Transport Operators in Europe: the METAFORA Pilots

*V. Evmolpidis, W. van der Hel*

Satellite Communication in Road Freight Operations: Toy or Tool?

*R.A.M. Jorna, C.A. Verzeij, S. Anderson*

Macro Economic Effects and Implications from Improved Integration and Application of ATT Systems

*F. Ballhaus, P. Söderberg, I. Vierth*

Experience with a Distributed Information Architecture for Real-Time Intermodal Tracking and Tracing

*E.H. Durr*

Small and Medium Sized Transport Enterprises in an Integrated Transport Centre Network - The FAST/TITE Feasibility Study

*K. Juul-Olsen, R. Leiserson, J.M. de Marco*

**E4**

**Sponsor: IVHS Canada**

U.S. Experience With Intelligent Transportation Systems Commercial Vehicle Operations - The Road to Deployment

*W.A. Leasure*

Real-time Information for Improved Efficiency of Commercial Vehicle Operations

*A.C. Regan, H. Mahmassani, P. Jaillet*

On-Board Automated Mileage and Stateline Crossing System for Apportioning Commercial Vehicle Fuel Taxes and Mileage and Automatic Submission to IFTA and IRP Base Jurisdiction

*W. McCall, T.H. Maze, R. Skluzacek, M. Ambros, K. Cameron, D. Johnson, M. Hancock, J. York*

Development and Implementation of Vehicle Monitoring and Control System for Toronto Airport

*R.L. Sabounghi, A.H. Soliman, D. Parker*

A Configurable Automatic Vehicle Location System

*Y. Zhao, A. Kirson, L. Seymour*
E5  
**Sponsor: IRU**

Integrating Communication Technologies to Improve Competitiveness in Management of Freight and Fleet Operations  
*B. Boussaroque*

Identification and Design of Support Developments needed to Enhance Dissemination of New Telematic Technologies in Freight Road Transport and Characteristics of this Support  
*G. Haessig*

Benefits of Commercial Fleet Management - The PROMETHEUS Results  
*E. Hipp*

Improvement of Traffic Data Collection System in Romania  
*M. Nicolau*

K  HUMAN FACTORS

K1  Overview and Evaluation Methods & Guidelines  
**Sponsor: EC/Transport Telematics Programme (DRIVE)**

Driver Assistance and Cooperative Driving  
*L.G. Rosengren*  
1613

Driving Behaviour under Adverse Visibility Conditions  
*J. Hogema, R. van der Horst*  
1623

*G. Nirschl, E.J. Blum, R. Eck*  
1631

Evaluation Framework for Driver Assistance Applications  
*E. Morello*  
1639

Generic Evaluation Methodology for Integrated Driver Support Applications  
*I.C. Risk, T. Bosser, J.A. Groeger*  
1647

Towards the Development of ATT Guidelines for Drivers with Special Needs  
*C. Nicolle, B. Peters, P.H. Vossen*  
1655

K2  Man-Machine Interfaces  
**Sponsor: EC/Transport Telematics Programme (DRIVE)**

Investigation of Man-Machine Interfaces and Training Programme for Elderly Drivers on Simulator Tests  
*C. Marin-Lamellet, M. Dejeammes, A. Simoes, A. Chapon*  
1661

MMI Design for AICC and Collision Avoidance Systems  
*B. Duncan, M. Fuchs*  
1669