ROAD SAFETY on THREE CONTINENTS

in PRETORIA

20 – 22 September 2000

CSIR

TECHNIKON PRETORIA

TRB

U.S. Transportation Research Board

Swedish National Road and Transport Research Institute

bast Bundesanstalt für Strassenwesen
WEDNESDAY SEPTEMBER 20

9 AM Registration and coffee

10 AM

OPENING SESSION

Chairman: Urban Karlström, Director General, National Swedish Road and Transport Research Institute, VTI, Sweden

Welcome address

Dr. A. Omar, Minister of Transport, South Africa

Road Safety Development in South Africa

Mr. P. Hendricks, Director, Transportek, CSIR, South Africa

Policy Making to Improve Road Safety

Executive Director Robert E. Skinner, Jr Transport Research Board, The National Academics, USA

New Approaches to Road Safety

Professor Dr. Günter Kroj, BASt, Germany

Entrance to CSIR
SESSION 1 • 13.00 – 17.30
ROAD SAFETY PROBLEMS AND SOLUTIONS IN AFRICA, EUROPE AND THE US
Chairman: Dr. Ekkehard Brüning, BAST, Germany
Experiences with roundabouts in Vestfold county. Accidents, traffic behaviour and geometric design
Tor Atle Odberg, Public Road Administration, Norway
Partnership, networks and continuous dialogue for a sustainable road safety strategy for Kenya
Meleckizdeck Khayesi, Kenyatta University, Kenya
Safety analysis of railroad to grade crossing
John Frantzeskakis, Denco, Greece
Comfort and safety in an user oriented TERN network ensuring interoperability of the transport infrastructure (1998)
Ronald Winkler, ADAC, Germany
Better signs for better roads
Adel Al-Yousifi, Sunderland University, Kuwait
Results of EU-project “Dan” (Measures for novice drivers)
Gregor Bartl, Austrian Road, Austria
Coffee 15.00–15.30
Effectiveness of measures for road safety
Ciro Caliendo, University of Naples, Italy
Road safety in Greece
Maria Sakki, Ministry of Public Works, Greece
Effective solutions against safety problems at high-risk sites: A specific manual
Reinhold Maier Institut für Strassenverkehr, Germany
Road safety differences in the Baltic-Nordic region
Ilmar Pihlak Dagov Antov, Tallin Technical University, Estonia
Lebanon’s and other middle eastern countries road safety records
Elias Choueiri, Ministry of Transport, Lebanon
The empowerment of teachers in OBE through traffic safety education
E.L. van der Merwe, CENET, South Africa

SESSION 2 • 13.00–15.00
ROAD SAFETY AUDITS
Chairman: Dr. Ekkehard Brüning, BAST, Germany
Road safety audits-checkpoints for newcomers
Ekkehard Brüning, BAST, Germany
Developing H4-safety barriers for Dutch freeways
Alfred Verweij, Ministry of Transport, The Netherlands
Road Safety improvement supported by road management computer system on the example of a few Polish cities
Tomasz Szczeraszek, University of Technology and Agriculture, Poland
Road safety audits
Alfonso Montella, University of Naples, Italy
Towards financing and planning road safety audits operation in Nigeria
J A Odelay, Nigeria Railway, Nigeria
Coffee 15.00–15.30
Application and development of road safety audits in Indonesia
Mr Lankaivyawati, Institute of Road Engineering, Indonesia
Amber means Stop
Svante Berg, Swedish National Road Administration, Sweden
Information and decisions support needs for highway safety
Kenneth Opiela, Transportation Consultants, USA

SESSION 3 • 16.30–17.30
MODELLING DRIVER BEHAVIOR FOR ROADWAY DESIGN
Chairman: Dr. David Shinar, Ben Gurion University, Israel
Traffic safety – The relative effectiveness of a variety of road markings and traffic control devices
Ruediger Lamm, University of Karlsruhe, Germany
Road user characteristics and their relation to behaviour and safety
Wiel Janssen, TNO Human Factors, The Netherlands
Flows study in roundabouts with simulation
Francesco Capaldo, University of Naples, Italy
A Versafile Crash Record Analysis system (CARE)
Dr Daniel S Turner, University of Alabama, USA

SESSION 4 • 13.00–17.30
HUMAN PERFORMANCE, ATTITUDES, VALUES AND ROAD SAFETY
Chairman: Dr. Gaudine Gawn, University of Natal, South Africa
The diminishing effectiveness of speed-monitoring cameras. The case of enforcement
PA. Kouushuki, Kuwait University, Kuwait
Driving aggression and accommodation towards pedestrian as a function of perceived legitimacy
David Shinar Ben Gurion University, Israel
Driving condition and driver demographics that promote aggressive driving
Richard Compton, U.S. Department of Transportation, USA
A comment of the definition of aggression and aggressive driving behavior
Truls Vaa, Institute of Transport Economics, Norway
Mining road accidents databases
Salvatore Caffo, University of Catania, Italy
A simulation study of locating the end of a climbing lane in Mountainous highway
Akihiro Shimoja, Engineering Research Institute, Japan
Coffee 15.00–15.30
Mortality rates of motorcyclists compared with car occupants. A comparison between East and West Germany for 1980–1998
V. Schneider, University of Berlin, Germany
Politics, violence and road safety why are South African roads such dangerous places?
Wendy Watson, Department of Transport, South Africa
Eye movement recording as a tool for accident in depth investigations
Torbjörn Falkmer, VTI, Sweden
Projected highway fatalities involving older drivers in the United States 2000–2020
Pat Hu, Oak Ridge National Laboratory, USA
Stepping stones to a safer community: Reflections of the santa safe community experience
Lynn Vermaak, CSIR Transportek, South Africa
A self help traffic safety programme for schools
C. Nkosi, CSIR Transportek, South Africa
The evaluation of a precarious action of alcohol and drugs consumption in Britain J.P. Assailly, INRETS, France

WEDNESDAY SEPTEMBER 20
12.00 LUNCH
SESSION 5 • cont. • 09.00–12.30

ROAD SAFETY PROBLEMS AND SOLUTIONS IN AFRICA, EUROPE AND THE US
Chairman: Prof. Karl Kim, University of Hawaii Manoa, USA
A comparative study of road safety between the USA, UK and South Africa
C. Mollett, University of Stellenbosch, South Africa
Road safety problems of developing and developed countries
B. K Yanney, University of Zimbabwe, Zimbabwe
Comparing road fatalities in three continents
C. J Bester, University of Stellenbosch, South Africa
Towards establishing a reliable data system in Ghana
Shaibu Bawa, Building and Road Research Institute, Ghana
Predictive models relating traffic safety with street design and traffic flows in
Addis Ababa
Girma Berhanu, NTNU, Ethiopia

COFFEE 11.00–11.30

In depth prediction models for rural roads in Egypt
Khaled A. Abbas, Egyptian National Institute of Transport, Egypt
Road safety education curriculum for South Africa schools
Tiesie Drotské, CSIR Transportek, South Africa
Lithuania road traffic safety programme for 2000–2005
Alvadas Piskūnas, Vilnius Technical University, Lithuania
Road safety policies in seven west African countries
Nicole Muhlrad, INRETS, France
Road safety problems and solutions in Algeria
Farid Assouane, ON CTPP, Algeria
Selling Traffic Safety
Dir J Pedio Correa, JPC Communications, Brazil

LUNCH 12.30–13.30

SESSION 6 • 13.30–18.00

TRAFFIC SAFETY POLICY, TRAFFIC SAFETY PROGRAMMES AND TRAFFIC SAFETY WORK ON THE NATIONAL/REGIONAL LEVEL, AND SAFETY MANAGEMENT TECHNIQUES AND INNOVATIONS
Chairman: Mr T. Manyathi, KwaZulu Natal, Department of Transport, South Africa
Thee road Network and the driver’s behavior
Daniel Heuchenne, Ministry of Equipment and Transport, Belgium
Safety-based evaluation of the provision of contra-flow bus line on fast lane (case study)
Martha Leni Siregar, University of Indonesia, Indonesia
Light condition and safety on highways
Annie Canel, SETRA, France
Zero fatalities – is that possible?
Trygve Solheim, Institute of Transport Economics, Norway

COFFEE 15.30–16.00

Sustainable traffic safety: From a corrective to a preventive approach
Jos Spriel, CROW, The Netherlands
Before and after studies for highway safety improvements in Italy
Salvatore Cafiso, University of Catania, Italy
Global standardisation – redefining fatalities
Stefan Lötter, CSIR Transportek Division, South Africa
An investigation of traffic crash migration at urban intersections
Tapan Datta, Wayne State University, UK

SESSION 7 • 09.00–11.00

DEVELOPMENTS AND DEMONSTRATION OF ADVANCED TECHNOLOGY TO IMPROVE ROAD SAFETY
Chairman: Dr Uwe Ellmers, BASt, Germany
Are German road restraint systems able to fulfil European requirement?
Uwe Ellmers, BASt, Germany
Comprehensive evaluation of advanced brake warning system
D. Shinar, Ben Gurion University, Israel
Advancing design stage road safety audits in the United States
Eugene M. Wilson, University of Wyoming, USA
Using transport telematics in preventing animal accidents
Leif Billinon, Finnish National Road Administration, Finland
Road network safety assessment: is videologgin a feasible option?
Siegfried Grosskopf, Africon, South Africa

COFFEE 11.00–11.30

VULNERABLE ROAD USERS E G PEDESTRIAN AND BICYCLES
Chairman: Dr H. Ribbens, Transportek, South Africa
Analysis of pedestrian travel characteristics in Mosul
Saad I Sarsam, Mosul University, Iraq
Regarding pedestrian traffic in road planning procedure
Reinhold Meier, Institut für Strassenverkehr, Germany
Improvement of pedestrian safety at zebra crossing
Mohsen Towilat, University of Lund, Sweden

LUNCH 12.30–13.30

Vulnerable road user: pedestrian road safety campaign in Morocco
D. Lasfar, CNPAC, Morocco
Vulnerable road users: The case of Botswana’s pedestrian
Mr Malghope, Commissioner of Police, Botswana
Holistic approach to pedestrian safety
Maunde street atteridgeville
Helius Visser, City Council, South Africa
30 km/h in Urban Areas
 Christer Hydén, University of Lund, Sweden

COFFEE 15.30–16.00
**THURSDAY SEPTEMBER 21**

**SESSION 9 • 16.00–18.00**

**DESIGNING AND OPERATING WORK ZONES FOR INCREASED SAFETY**
Chairman: Prof. Rüdiger Lamm, University of Karlsruhe, Germany

- 4-0 and 3-1 contraflow workzone areas: Effects on driving behaviour, workload and comfort
  - Marieke Martens, TNO Human Factors, The Netherlands

- New regulation for designing and operating work zones in the Czech Republic, theory and the first practical experiences
  - Pavel Tucka, CDV, Czech Republic

- Evaluation and new guidelines for the use of mobile lane signalling (MRS)
  - Michel Kuster, Traffic Research Centre, The Netherlands

- Using commentary driving safety audit of low volume roads
  - Eugene Russel, Kansas State University, USA

- Distribution and characteristics of crashes at different locations within work zones in Virginia
  - Nicholas J. Garber, University of Virginia, USA

- Incident management programs in the United States
  - PE Cunard, TRB, USA

**SESSION 10 • 09.00–12.30**

**TRAFFIC ENGINEERING FOR INCREASED MOBILITY AND SAFETY**
Chairman: Dr. Werner Schnabel, Dresden University, Germany

- Accident occurrence in Tram Traffic
  - Werner Schnabel, Dresden University of Technology, Germany

- Simulation of intersection approaches with random and uniform arrival patterns
  - Joseph C. Oppenlander, University of Vermont, USA

- The use of concrete blocks on intersections
  - Sikke R. Bangma, DHV Consultants BV, The Netherlands

- Low cost engineering measures and stricter enforcement – A successful combination to improve road safety on a dangerous rural route
  - J.L. Cardoso, LNEC, Portugal

**COFFEE 11.00–11.30**

- A comparison of a roundabout two and four-way stop control at residential neighborhood junction
  - Eugene Russel, Kansas State University, USA

- Functional requirements for a new roadside barrier system
  - Richard McGinnis, Bucknell University, USA

- Crash reduction following installation of roundabouts in the United States
  - Bhagwant Persaud, Ryerson Polytechnic University, Canada

- Safety risks at traffic light installations
  - Manfred Brenner, BAST, Germany

- Assuring safe roadside in urban and suburban areas
  - K. Opiela, Transportation Consultant, USA

**LUNCH 12.30–13.30**

**SESSION 11 • 13.30–15.30**

**GRADUATED LICENSING, AND OTHER DRIVER EDUCATION AND CONTROL TECHNIQUES**
Chairman: Mr. E. Mhlongo, President, South African Institute for Driving Instructors (SAIDI)

- Rethinking educational content of driver licensing system
  - Nils-Petter Gregersen, VTI, Sweden

- Youngsters on motorized wheels
  - Per-Harald Hermansen, Statens Vegvesen Telemark, Norway

- Reaching for driver competencies rather than driver skills
  - Hans Mattsson, Swedish National Road Administration, Sweden

- An inquiry into a new graduated driver education system in Sweden
  - Per-Olof Grummas Granström, Swedish National Road Administration

- Describing traffic accident pattern during driver training – base for preventive measures
  - Hans-Yngve Berg, VTI, Sweden

**COFFEE 15.30–16.00**

**SESSION 12 • 16.00–18.00**

**ROAD ACCIDENT COSTS AND COST BENEFIT EVALUATION**
Chairman: Dr. Patricia Hu, Oak Ridge National Laboratory, USA

- Cost-effectiveness of low-cost road engineering measures in the reduction of accident
  - Roberto Llamas Rubio, General Directorate for Road, Spain

- The cost of road accidents as a determinant factor in transport policy
  - G. Tsoulos, Aristotle University Thessaloniki, Greece

- Road accident cost calculations in Estonia
  - Peep Sürje, Tallin Technical University, Estonia

- Benefit/cost analysis for the selection of road safety alternatives
  - A Montella, University of Naples, Italy

- Assessment of the relationship between 30km zones and the surrounding major roads on traffic safety
  - Guido Schuster, Civil Engineering Department of Hamburg, Germany

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South African Barbecue
The bus will pick you up at the hotel at 7.30 PM
SESSION 13 • 09.00-12.30  
**TRAFFIC SAFETY POLICY, TRAFFIC SAFETY PROGRAMMES AND TRAFFIC SAFETY, WORK ON THE NATIONAL/REGIONAL LEVEL, AND SAFETY MANAGEMENT**

Chairman: Prof. Fries van Vuuren, Technikon Pretoria, South Africa

“DUMAS” – Town study cottbus – Germany

Edith Buss, BASt, Germany

Safety assessment by road user – result from questioning 1000 motorists on the A45 in Germany

Bernhard Steinaur, Institut für Strassenwesen, Germany

Implementation of road accident countermeasures - what is the problem?

Terje Assum, Institut of Transport Economics, Norway

“Traffic of life” – The human factor in traffic safety programmes

Pieter Venter, CSIR Transportek, South Africa

**COFFEE 11.00–11.30**

The South African road safety manual–a first for South Africa

I van Schalkwyk, BCP, South Africa

Road safety programme in Tanzania

B K Steinset, Norwegian Public Roads Administration, Norway

Quantifying safety performance of road projects: Three case studies of road safety reviews

E Tan, National University of Singapore, Thailand

Studying all interactions – a new way of analysing traffic safety

Åse Svensson, University of Lund, Sweden

**LUNCH 12.30–13.30**

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SESSION 14 • 09.00–10.00  
**TRAFFIC LAWS, TRAFFIC CONTROL AND ENFORCEMENT TECHNIQUES**

Chairman: Mr L. Mangcu, National Department of Transport, South Africa

Monitoring police enforcement: synthesis of guidelines

Victoria Gitelman, Transportation Research Institute, Israel

Fasten seat belt – Traffic accident situation in Germany and risk homeostasis theory

Kalus Falk, Dresden University of Technology, Germany

Speed, traffic cameras and justice: lessons learned in two societies

Rob Reid Smith, Victoria Police, Australia

**COFFEE 11.00–11.30**

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SESSION 15 • 10.00–12.30  
**MODELLING OF ROAD SAFETY**

Chairman: Dr Göran Tegnér, TRANSEK, Sweden

Characterizing commercial vehicle safety in Montana

Jodi L. Carson, Montana State University, USA

Development of an advanced cost benefit analysis system for the Spanish National Road safety improvement programme

Roberto Llamas General Directorate for Road, Spain

An analysis of urban road traffic safety in the city of Stockholm – The use of aggregate time-series models with the TRIO programme

Göran Tegnér, Transek AB, Sweden

Analysis of traffic accidents at urban intersections when exposure data is unavailable

Ali Al-Gamdi, King Saud University, Saudi Arabia

Vehicle infrastructure related safety technology (VIRST)

Roeland M. M Hogt TNO-Automotive, The Netherlands

The potential of microscopic simulation in traffic safety and conflicts study

Lisa K Kosonen, Helsinki University of Technology, Finland

A Network Disaggregate Model for Road Risk Indicators

Dr Ruth Bergel, INRETS, France

**LUNCH 12.30–13.30**

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SESSION 16 • 09.00–12.30  
**TRAFFIC CALMING AND SPEED MANAGEMENT**

Chairman: Dr V. Mikosana, Eastern Cape Department of Transport, South Africa.

The impact of seatbelt wearing on driver speeds in urban areas

C. Mollett, University of Stellenbosch, South Africa

Setting of speed limits in South Africa

Dick Slater, NDOT, South Africa

Traffic calming measures. The experience of their implementation in urban areas in Greece

M. Pitsiava, Aristotle University of Thessaloniki, Greece

Traffic calmings

Lena Smidfelt Rosqvist, University of Lund, Sweden

Traffic calming and management strategy for a local distributor facility

John Jones, Hawkins & Osborn, South Africa

**COFFEE 11.00–11.30**

Problems of road safety on transit roads crossing small towns in Poland

Kazimierz Jamroz, Technial University of Gdansk, Poland

Traffic calming in Pretoria- effectiveness of mini circles and design of speed humps

J. Coetzee, City Council of Pretoria, South Africa

Bumps in the road: evaluation on traffic calming projects

Karl Kim, University of Hawaii at Manoa, USA

Swedish Traffic Accident Data Acquisition (Strada)

Bengt Sjöö, Swedish National Road Administration, Sweden

**LUNCH 12.30–13.30**
CONFERENCE FEE
USD 500   EURO 550

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fax no: +46 13 12 61 62 (see General Information)
ATTENDANCE FEE
The fee includes attendance at sessions, pre-prints, refreshments, lunches and dinner on the 21st.
Payment can be made in the following currencies: USD 500, and EURO 500.

PAYMENT INSTRUCTIONS
The conference fee has to be paid to the VTI before September 15th 2000 according to one of the following alternatives:
1) by cheque attached to the registration form
2) to our bank:
   Den Danske Bank, Copenhagen
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   VTI Utveckling AB
   Account no. 1302-16-11028
   (Please attach a copy of your receipt of your bank transfer together with your registration form)
3) via MasterCard, Visa or Eurocard

REGISTRATION
Registration form shall be sent to the Conference secretariat, VTI by mail or fax at the latest September 15.
Registration can also be made at our website: www.vti-utveckling.se

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CONFERENCE SITE
CSIR Conference Centre, Meiring Naube’ Road
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LANGUAGE
English will be the official language of the conference.

BUS TRANSFER
There will be busses taking you between the listed hotels and the conference venue. These busses will run one tour in the morning and one tour in the afternoon between those hotels that you find on the hotel reservation form.

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GENERAL INFORMATION

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