

PIARC Technical Committee B.2 – Road Network Operations
Phil Lawes – Department for Transport, Energy & Infrastructure (SA)
25-28 April 2011 – Kuala Lumpur, Malaysia

Executive Summary

The PIARC Technical Committee (TC) B.2 conducted a seminar in conjunction with TC B.1 (Good Governance of Road Administrations) on 25-27 April 2011 in Kuala Lumpur, Malaysia. Titled “*Roads & Highways: Optimising Services for the Customer*”, the seminar was organised in conjunction with the Ministry of Works Malaysia, the Public Works Department Malaysia, the Malaysian Highway Authority, and the Intelligent Transport System Association of Malaysia. Mr Lawes was a panellist for the session titled “*Management of Congested Areas: Reducing Recurring and Non-Recurring Congestion*”.

The eighth meeting of the PIARC Technical Committee (TC) B.2 was also held in Kuala Lumpur on 27-28 April 2011. The primary purpose of the meeting was to review the progress of work programs for each Working Group for 2008-2011, and plan for the upcoming World Congress in Mexico.

Background

Technical Committee B.2 falls within the PIARC theme of ‘Improving the Provision of Services’ (Theme B). TC B.2 was created to further progress work undertaken in the previous cycle by TC 1.4, examining approaches to make best use of the available road space, with a focus on technology.

Technical Committee B.2

Chair

M. Martial Chevreuil (France)

English Speaking Secretary

Ms Eva Boethius (Sweden)

Three issues are being covered by the Committee (refer to the attached Terms of Reference):

- Issue B.2.1 - Management of congested areas
Chair: Mr Bob Arnold (USA).
- Issue B.2.2 - Appropriate use of ITS for an integrated transport system
Chairs: Mr Robert Cone (UK) – PIARC/FISITA (International Federation of Automotive Engineering Societies) Joint Task Force
Mr Richard Harris (UK) – Liaison with IBEC (International Benefits Evaluation and Costs) Working Group
Mr John Miles (UK) – ITS Handbook
- Issue B.2.3 - Management of road corridors.
Chair: Ms Susan Spencer (Canada)

Mr Phil Lawes is a member of the B.2.1 Working Group. There is a strong correlation between B.2.1 and B.2.3, and work programs are being progressed cooperatively between the two groups.

PIARC Seminar

Roads & Highways: Optimising Services for the Customer

The objective of the seminar was to present concepts and frameworks towards enhancing service levels for road network users, as well as the establishment of feedback loops in measuring or assessing road users’ satisfaction. Focusing on customer service, the seminar provided an insight on current best practices internationally in:

1. Good governance and road administrations: customer relationship and satisfaction;
2. Management of congested areas: pricing and tolling; and,
3. Management of road corridors: land use and transportation.

Conducted on 25-27 April 2011 and involving 523 participants from 28 countries, the seminar involved the presentation of 16 papers, 3 panel sessions, 2 workshops, and 2 technical visits (refer program attached).

In Panel Session 3 "*Management of Congested Areas: Reducing Recurring and Non-Recurring Congestion*", Mr Lawes spoke about the following topics:

- There is no one solution for urban congestion. In Australia COAG has identified a range of potential measures, and each jurisdiction needs to determine solutions to suit their own situation.
- South Australia has adopted a range of solutions, including investment into public transport, key road corridors, traffic management, cycling and walking, Travel Smart, and ITS measures.
- TC B.2 has collected over 50 case studies from around the world of measures used to address urban congestion. This will be a good resource.
- In the speaker's opinion, potential key areas of opportunity include greater integration with land use planning, and the evolution of vehicle-to-vehicle and vehicle-to-infrastructure technologies.

Mr Philip Walsh, Principle Manager Intelligent Transport Systems, VicRoads, presented a paper on the Monash – City Link – West Gate Upgrade Freeway Management System.

Technical Committee Meeting Work Program

B.2 Technical Report

- Draft report has been provided to PIARC, and constructive comments have been received. These comments were discussed and will be used to revise the report.

Mexico World Congress

- The agenda for the TC B.2 session needs to be finalised by 31 May 2011. In summary the Committee is proposing:
 - Introduction – M Chevreuil
 - TC report summary (B.2.1/B.2.3 and B.2.2) – R Arnold, S Spencer, P Lawes
 - Demonstration of the ITS Handbook website – J Miles
 - Implementation plan for the new cycle – M Chevreuil
 - Presentation of papers
 - Q&A.
- Members had previously reviewed most of the submitted papers allocated to the committee. A small number required review at the meeting. Preferred papers were selected for presentation as part of the TC B.2 session. The Committee also identified papers to be nominated for prizes.

Online Version of ITS Handbook and Network Operations Handbook

- Draft version is complete.
- There is a need to incorporate information contained within the TC report, including the case studies collected by B.2.1/B.2.3. This will be a challenge before the World Congress.
- Each member needs to review the applicability of the existing case studies on the ITS website.
- The committee shall identify what tasks need to be passed on to the next PIARC committee cycle.

Joint Task Force Report

- 6 chapters and a conclusion have been drafted, but further work required. Version to be distributed before the next TC meeting.

Feedback from the Seminar

- The TC members provided positive feedback regarding the seminar, and praise for its organisation.
- Some of the participants requested:
 - More local speakers and applications; and,
 - More key note speakers.

Other Meeting outputs

Program of next TC meetings

- TC B.2 meeting in Lyon, France, on 9-10 June 2011.

Emerging issues

Aspects discussed as part of the seminar included:

- The need for increased transparency in decision making.
- Greater role for customer satisfaction in planning processes and decision making.
- Customer Satisfaction indices.
- The role of congestion charging.
- The role of HOT lanes.
- 'Touch-n-go' technologies for fare/toll collection.
- Pros and cons of a single contract versus multiple contracts in delivering an ITS project.
- Benefits, characteristics and innovations of managed motorways.
- Best practice in estimating travel time.
- The benefits and challenges of connected vehicles.

Learnings for Australia and/or New Zealand

Papers at the seminar relating to urban congestion provided valuable information regarding some specific measures that have been adopted to address the growing problem at various locations across the world. There was general recognition that each country and jurisdiction need to determine the most relevant and complementary measures to mitigate increasing urban congestion to suit their individual needs.

The exposure to information within the case studies collected by the committee and sessions at the seminar demonstrates that Australia is at the leading edge of the development of some measures (eg managed motorways).

Dissemination

All reports on TC B.2 will be circulated to the PIARC First Member for Australia, PIARC TC B.2 Corresponding Members, Austroads (including the Network Program group manager for further circulation), the Department for Transport, Energy and Infrastructure (SA), interested observers, and placed on the Austroads website.

Benefits from other associated activities

The technical visits associated with the seminar provided a unique perspective on the progress being achieved in Kuala Lumpur in addressing urban congestion, while also highlighting ongoing challenges.

The new Terminal Bersepadu Selation (TBS) multi-modal public transport interchange in Kuala Lumpur is a 6 level, state-of-the-art facility that caters for buses serving the southern part of Malaysia and Singapore (19 departure bays and 18 arrival bays). Linked to the adjacent KTM Komuter, Express Rail Link, and Rapid train systems, it provides effective integration between the public transport modes. While located outside of the city centre, the rail services provide effective connectivity for passengers, and it removes all the buses from city streets thereby reducing congestion.

The Malaysian Highway Authority's traffic management centre was established in 2005 with the objective to monitor the real time operation of 1,740 km of expressways across Malaysia. The centre provides a centralised coordination role with 26 highway operators, using 220 CCTV cameras, 88 VMS, and 217 vehicle detectors. The current resistance by highway operators to utilise automated toll collection tags to estimate travel times, and the relatively limited real-time data collection systems, provide a challenge to the operators of the centre.

Conclusions and recommendations

The seminar in Kuala Lumpur provided an effective opportunity for transport professionals, students, etc in Malaysia to be exposed to international experiences in addressing urban congestion and road administration governance practices focussed upon the customer. It also exposed international delegates to the achievements and challenges facing Malaysia.

PIARC Technical Committee B.2 – Road Network Operations

Issue B.2.1 - Management of congested areas	
Strategies	Outputs
Examine the understanding of and successful approaches to managing traffic flow on major urban and interurban roads in congested areas.	A study of the factors affecting the efficient use of road space on major urban and interurban roads, with proposals for how network operators can successfully manage congested areas.
Issue B.2.2 - Appropriate use of ITS for an integrated transport system	
Strategies	Outputs
Investigate how ITS investments for road network operations are evaluated and identify policy related performance indicators in order to evaluate the success of ITS strategies of different countries.	<p>Identification of success factors for ITS strategies and precautions to take against failure.</p> <p>Recommendations on how road authorities should assess and evaluate ITS schemes. Revision of the World Road Association ITS handbook to strengthen coverage of ITS in developing countries, ITS for road safety and the evaluation of ITS schemes.</p>
Issue B.2.3 - Management of road corridors	
Strategies	Outputs
<p>Identify the factors affecting corridor usage, and how to influence users</p> <p>[Cross-border issues : integration of services across country borders]</p>	<p>A study of the most important issues for operators of road corridors and advice for influencing users to make optimum travel choices.</p> <p>[Identification of issues, examples of best practice]</p>



**WORLD ROAD ASSOCIATION
MONDIALE DE LA ROUTE
APRIL 2011**

PIARC

International Seminar 2011

ROADS & HIGHWAYS: OPTIMISING SERVICES FOR THE CUSTOMER

The Royale Chulan Hotel,
Kuala Lumpur,
Malaysia
25 to 27 April 2011

Organised by:

-  **MINISTRY OF WORKS MALAYSIA**
-  **PUBLIC WORKS DEPARTMENT MALAYSIA**
-  **MALAYSIAN HIGHWAY AUTHORITY**
-  **INTELLIGENT TRANSPORT SYSTEM ASSOCIATION OF MALAYSIA**

Supported by:

-  **ROAD ENGINEERING ASSOCIATION OF ASIA AND AUSTRALASIA**
-  **ROAD ENGINEERING ASSOCIATION OF MALAYSIA**
-  **THE CHARTERED INSTITUTION OF HIGHWAYS & TRANSPORTATION (MALAYSIA BRANCH)**

Platinum Partner:  **PLUS EXPRESSWAYS BERHAD**

Silver Partner:  **KAPSCHE TRAFFICOM**

Seminar Programme

24 April 2011 (Sunday)

2.00pm - 6.00pm Registration
Participants are encouraged to register before start of seminar / Day 1 to facilitate improved flow on event days

DAY 1: 25 April 2011 (Monday)

8.00am - 9.00am	Registration		
9.00am - 10.00am	Panel Session 1 @ Taming Sari 1&2 Use of Fees/Tolls/Taxes Associated with Transportation <i>Lead Moderator: Paul van der Kroon - (Netherlands)</i> <i>Panel Members: Alexander Walcher (Austria)</i> <i>Jonathan Spear (UK)</i> <i>Robert Arnold (USA)</i> <i>Philip Walsh (Australia)</i>		
10.15am - 11.15am	Welcome Speech by Dato' Sri Prof Ir Dr Judin Abdul Karim, 1 st Delegate to the World Road Association (PIARC) Address by Paul van der Kroon, Chair of PIARC Technical Committee B1 Good Governance and Road Administrations Address by Martial Chevrouil, Chair of PIARC Technical Committee B2 Road Network Operations Key Note Address by Dato' Shaziman Abu Mansor, the Hon. Minister of Works, Malaysia, AND Official Launch MoU Signing Ceremony		
11.15am - 11.30am	Launch of Exhibition	Network Break	
11.30am - 1.00pm	Technical Session 1 GOOD GOVERNANCE AND ROAD ADMINISTRATIONS: CUSTOMER RELATIONSHIP AND SATISFACTION		
11.30am - 11.45am	Introduction by PIARC Technical Committee B1 @ Taming Sari 1&2 Good Governance and Road Administrations: Customer Relationship and Satisfaction <i>Paul van der Kroon (Chair TC B1)</i>		
	TRACK 1A @ TAMING SARI 1&2	TRACK 1B @ TAMING SARI 3	Training Session on ITS (by TC B2) @ Sri Panglima 2
11.45am - 12.10am	Paper 1 Delivering Public Value - Focus on the Customer (Sweden) <i>Speaker: Agneta Wärgsjö</i>	Paper 3 Seeking Customer Input and Using It! (USA) <i>Speaker: Mira Campbell</i> <i>(paper will be presented by Paul van der Kroon)</i>	
12.10am - 12.35am	Paper 2 The True Benefits of Customer Segmentation (Finland) <i>Speaker: Sanna Kalomäntien</i>	Paper 4 Highway Customer Satisfaction Index Study Towards Establishing Higher Performance on Service Provider (Malaysia) <i>Speaker: Ir Abdullah Hashim</i> <i>Dr Nooreha Hussain</i>	
12.35am - 1.00pm	Q&A	Q&A	
1.00pm - 2.00pm	Lunch @ Warisan Cafe		
2.00pm - 4.00pm	Technical Session 2 MANAGEMENT OF CONGESTED AREAS: PRICING AND TOLLING		
2.00pm - 2.15pm	Introduction by PIARC Technical Committee B2 @ Taming Sari 1&2 Management of Congested Areas: Pricing and Tolling <i>Martial Chevrouil (Chair TC B2)</i>		
	TRACK 2A @ TAMING SARI 1&2	TRACK 2B @ TAMING SARI 3	
2.15pm - 2.40pm	Paper 5 Congestion Tax in Stockholm, Sweden and the Helsinki Region Congestion Charges (Finland) <i>Speaker: Patteri Portankorva</i>	Paper 8 The Rome City Centre Access Control Scheme (Italy) <i>Speaker: Maria Maria Coppa</i>	
2.40pm - 3.05pm	Paper 6 US Department of Transportation - Urban Partnership Agreement Program: Miami, FL I95 Express Lanes (USA) <i>Speaker: Robert Arnold</i>	Paper 9 What Makes the Difference: Optimising ETC Services for the Customer (Greece) <i>Speaker: Jean Harito</i>	
3.05pm - 3.30pm	Paper 7 Evolution from Fars Collection to Congestion Management: The Changing Role of Touch 'n Go EPS (Malaysia) <i>Speaker: Khair Ul-Amwar Mohd Yusoff</i>	Paper 10 Management of Peak Period Congestion along the North-South Expressway (Malaysia) <i>Speaker: Nik Azzina Nik Jaffar</i> <i>Zul Hisham Hamzah</i>	
3.30pm - 4.00pm	Q&A	Q&A	
4.00pm - 4.30pm	Network Break		
4.30pm - 5.30pm	Panel Session 2 @ Taming Sari 1&2 Management of Congested Areas: Reducing Recurring and Non-Recurring Congestion <i>Lead Moderator: Dato' Ir Hj Ismail Md Salleh (Malaysia)</i> <i>Panel Members: Robert Arnold (USA)</i> <i>Phil Laves (Australia)</i> <i>Jason Chang (Taiwan)</i> <i>Mohammad Hkmet (New Zealand)</i>		
8.00pm - 10.00pm	Seminar Dinner @ Seri Melayu		

DAY 2: 26 April 2011 (Tuesday)

9.00am - 11.00am	Technical Session 3 MANAGEMENT OF ROAD CORRIDORS: LAND USE AND TRANSPORTATION	
9.00am - 9.15am	Introduction by PIARC Technical Committee B2 @ Taming Sari 1&2 Management of Road Corridors: Land Use and Transportation <i>Martial Chevreuil (Chair TC B2)</i>	
	TRACK 3A @ TAMING SARI 1&2	TRACK 3B @ TAMING SARI 3
9.15am - 9.40am	Paper 11 Procurement of a Design-Build-Operate-Maintain (DBOM) Contractor for the National Intelligent Transport System (ITS) in South Africa (South Africa) <i>Speaker: Gail Bestler</i>	Paper 14 Integrated Pedestrian Network in Kuala Lumpur - Making Connections (Malaysia) <i>Speaker: Ir Dr Leong Siew Mun</i>
9.40am - 10.05am	Paper 12 Monash - Citylink - West Gate Upgrade Freeway Management System (Australia) <i>Speaker: Phillip Walsh</i>	Paper 15 Working with Local Communities: Integrating an Expressway in its Corridor - Study Case of the North Luzon Expressway in the Philippines (Philippines) <i>Speaker: Marc Desserrières Donnah Ethel Ganan</i>
10.05am - 10.30am	Paper 13 Introduction of Section Traffic Detection Systems for Advanced Road Management (Korea) <i>Speaker: Seungwon Lee</i>	Paper 16 Lane Change Experiment Aimed at Reducing Traffic Congestion (Japan) <i>Speaker: Mitsuhashi, Masahiko</i>
10.30am - 11.00am	Q&A	Q&A
11.00am - 11.30am	Network Break	
11.30am - 12.30pm	Panel Session 3 @ Taming Sari 1&2 Management of Road Corridors: Innovations from the Developing Countries <i>Lead Moderator: Dato' Ir Hj Mohamad Husin (Malaysia)</i> <i>Panel Members: Donnah Ethel Ganan (Philippines) Jack Yao (ITS Thailand) Jorge Acha (Mexico) Dr. Max Antameng (Indonesia)</i>	
12.30pm - 2.00pm	Lunch @ Warisan Cafe	
2.00pm - 3.30pm	Workshop 1 @ Taming Sari 1&2 Multi-Lane Free Flow <i>Lead Moderator: Dato' Noorizah Hj Abd Hamid (Malaysia)</i> <i>Panel members: Sazally Saidi (Malaysia) Zaida Abdul Aziz (Malaysia) Phillip Walsh (Australia) Jean Harito (Greece)</i>	Workshop 2 @ Taming Sari 3 Joint Task Force: Preview - Connected Vehicle <i>Lead Moderator: Robert Cone (UK)</i> <i>Panel members: Martial Chevreuil (France) Robert Arnold (USA)</i>
3.30pm - 4.00pm	Network Break	
4.00pm - 4.45pm	Seminar Conclusions @ Taming Sari 1&2	
4.45pm - 5.00pm	Closing Ceremony by Dato' Yong Khoo Seng, the Hon. Deputy Minister of Works, Malaysia	

DAY 3: 27 April 2011 (Wednesday)

7.00am - 2.30pm	Technical Visit 1 <ul style="list-style-type: none"> Proton Automotive Plant, Shah Alam PLUS Traffic Monitoring Centre, Persada PLUS, Petaling Jaya Putrajaya 	Technical Visit 2 <ul style="list-style-type: none"> Integrated Transportation Terminal, Bandar Tasek Selatan, Kuala Lumpur Malaysian Highway Authority Traffic Management Centre, Kajang Putrajaya
	Lunch	Lunch



Proton Automotive Plant



PLUS TMC



MHA TMC



Putrajaya