



ITS Canada News

ITS Canada Election for Chairperson and Board of Directors

The current Board of Directors was elected in May 2005 for a two-year term. The next election will be held in February/March 2007, with results confirmed by a vote of the members at the Annual General Meeting to be held on Sunday, April 29, 2007, in Niagara Falls, Ontario. If you wish to be a part of the team that will influence and guide the future of ITS in Canada, please consider being a candidate for Chairperson and/or Director in the upcoming election.

Susan Spencer, Director of Intelligent Transportation Systems at Transport Canada, has agreed to act as Returning Officer for the election process.

A call for nominations for Chairperson and Directors is hereby initiated. The closing date for nominations will be Monday, January 29, 2007.

Members in good standing are invited to mail or fax their nominations to Susan Spencer using the Nomination Forms available on ITS Canada's website. In order to be valid, nominations must include the signatures of a nominator, a seconder and the candidate, as well as a half-page biography of the candidate. Those with previous experience in ITS Canada's activities are encouraged to include their contribution to the Society in their biography.

The nominator, seconder and candidate must not be representatives of the same Corporate or Sustaining Corporate member. Please note that the nominators, seconders and candidates must be members in good standing, with membership fees fully paid by January 27, 2007.

Any candidate for Chairperson who also wants to be a candidate for Director must submit two nomination forms: one for Chairperson and one for Director.

Nomination forms and biographies should be mailed or faxed to:

Ms. Susan Spencer, Director – Intelligent Transportation Systems
Transport Canada, Surface Transportation Policy
330 Sparks Street, Place de Ville, Tower C, 27th Floor
Ottawa, Ontario K1A 0N5 Fax: (613) 998-3987

An electronic copy of your biography should also be forwarded to itscanada@itscanada.ca.

The slate of candidates will be announced during February 2007, and ballots will be mailed out to qualified members at that time. More information about the voting process will be provided in ITS Canada's upcoming newsletters. Should you have any questions regarding the status of your membership, please contact ITS Canada's Secretariat via email at itscanada@itscanada.ca. Full details regarding a Director's role have been posted on the ITS Canada website at:

www.itscanada.ca/english/boardofdirectors.htm

Inside This Issue

Articles

- ITS Canada Elections for Chair and Board ...page 1
- ITS Canada Workshop held in Montreal ... p2
- Transit Signal Priority in Mississauga ... p3
- Parking Automation ... p4
- IBEC / ISO TC 204 ... p5

Features

- Members in the News ... p6
- Upcoming Events ... p7

Newsletter published by
ITS Canada.

Submissions or comments can
be e-mailed to

itscanada@itscanada.ca.



Visit ITS Canada's website at
www.itscanada.ca

Partnership Success – ITS and Public Transport Symposium in Montreal

By William Johnson, Chair – ITS Canada Education and Training Committee

ITS Canada, in partnership with the Association québécoise du transport et des routes and the Canadian Urban Transit Association, presented a successful symposium in Montreal entitled “*Les systèmes de transports intelligent (STI) au service du transport collectif*” or in English “*Intelligent Transport Systems (ITS) and Public Transit*”. The event was organized by AQTR under the guidance of an Organizing Committee of members representing the three partner organizations.

The one-day event attracted an audience of over 120 delegates from Québec and across Canada. The program included 10 informative presentations and interaction with eight exhibitors. Dr. Brendon Hemily, a member of ITS Canada, delivered the first formal presentation to set the stage for the day’s program: “*ITS in Canadian Public Transit: Context and Problems*”. Invited speakers then made presentations on topics as diverse as: “*framework for evaluating ITS projects*”; “*dynamic transit information signs*”; “*transit signal priority*”; “*systems to ensure user safety*”; “*use of 511*”; “*benefits on 98 B-Line*”; “*ITS and fleet maintenance*”; “*real-time detection and notice of delays*”; and “*Ottawa’s smart card project*”. AQTR plans to post the speakers’ presentations on their website at www.aqtr.qc.ca and these will be available shortly.

The symposium enjoyed the support of the Agence métropolitaine de transport (AMT) and Transports Canada (for simultaneous interpretation service) as well as sponsorship from Bombardier Transportation, Bell Canada and Tecsum Inc. To welcome delegates, Mr. Claude Carette, President of AQTR, and Mr. Joël Gauthier, Honourary President of the Symposium and President and CEO of AMT, delivered the opening remarks. Delegates enjoyed a lively and informative luncheon speaker, Mr. Carl Desrosiers, Executive Director of Operations, Société de transports de Montréal who spoke on plans to upgrade the Montreal Metro, “*The Reno-system Project*”. Dr. Michael Rochlau, President and CEO of the Canadian Urban Transit Association, delivered concluding remarks.



The success of this event is a tribute to the importance of the topic and to the close cooperation among the three partners – ITS Canada, AQTR and CUTA. This cooperation has been greatly facilitated by the existence of both a spirit of collaboration and formal agreements among the partner organizations. ITS Canada can take some credit for initiating the collaboration that led to this event through its initiative to foster ITS training workshops and similar regionally focussed outreach events with partners across Canada.

511 in the United States

Statistics for October 2006, as reported to the 511 Deployment Coalition:

- 1,631,857 total calls in October.
- Almost 62 million calls nationwide since inception.
- 26 consecutive months with over 1 million calls.
- 511 was available to over 100 million Americans (35%).
- Systems deployed for over one year saw a 21.3% increase in October 2006 call volumes compared to October 2005.
- The Southeast Florida service received its 9 millionth call and the Oregon service received its 2 millionth call.
- September saw the 2-year anniversary of the service launch in Colorado and Nebraska had its 5- year anniversary.

Transit Signal Priority in Mississauga An Innovative Approach to System Fine Tuning

By Mike Corby, IBI Group

The City of Mississauga with partnership support from Transport Canada, has undertaken a pilot deployment of Smart Vehicle applications in order to validate potential benefits. Transport Canada's funding comes from the ITS component of the Strategic Highway Infrastructure Program. As part of this work, Transit Signal Priority (TSP) has been deployed along the Hurontario Street corridor. The Smart Vehicle TSP system includes three main components:

- Transit Management System (TMS), which includes the Vehicle Logic Unit (VLU) on board the transit vehicle, and central CAD/AVL software;
- Traffic Signal Control System, including central software TSP logic; and
- Transit vehicle detection system.

This system is capable of active, conditional TSP, where TSP is only initiated when predetermined conditions (e.g., schedule adherence and passenger loading) are met. The onboard VLU controls the TSP request by tracking the transit vehicle position along the roadway to determine schedule adherence, along with passenger loading from the automatic passenger counter. When the predetermined conditions are met, the request for priority is initiated. Each intersection approach has unique TSP trigger points to initiate and cancel the request for priority.

Although several TSP systems have been deployed with this level of system sophistication, there is little published literature focusing on the methodology used in fine-tuning TSP applications. For the Mississauga assignment, a unique TSP fine-tuning process was developed that is based upon the use of a GPS video survey tool, RouteMapper Lite™.

The objective of the TSP fine-tuning exercise is to verify that TSP is operating properly and that the TSP parameters (including the VLU distances for check in/check out, the traffic signal system maximum green extension, red truncation times and bus dwell times at nearside stops) are suitable for the various intersections.

RouteMapper Lite™ is installed on a selected transit vehicle, which drives through the route several times in order to provide a comparative sample of TSP activity at the same intersection during different time periods. The TSP event logs from the TMS and the traffic signal control system are collected and analyzed using the RouteMapper Lite™ browser to consolidate the TSP activity, effectively replaying the TSP events.



The RouteMapper Lite™ GPS video survey results were used to identify intersections where:

- The request for priority was generated, but not received – potentially faulty detection system.
- The request for priority was not generated, but was received – detection system is acknowledging a request from an upstream intersection.
- The request for priority was generated and received, but the TSP routine was not successful – TSP parameter adjustment required.



Parking Automation

A segment of ITS that helps reduce congestion ... and frustration!

By Robert Bruce, ITS Canada Director

Intelligent Transportation Systems keep traffic moving efficiently on road networks throughout the world. This traffic is all heading to exactly the same location – a parking space. Too many cars and too few parking spaces put tremendous strain on our transportation networks. Just as the technology of ITS reduces the need to expand the concrete infrastructure, clever and innovative parking solutions minimize the need to build more parking stalls.

Nothing highlights this traffic/parking problem more than special events that attract thousands and thousands of visitors to a single destination. Few of us can resist the urge to search for the parking spots at the cheapest price or the one free spot nearest to the event. This search causes added queues and congestion in the area of the event and strategies to reduce the search help to improve conditions on the road network.

Some of the classic traffic demand management solutions are quite simple, and geared towards people using other than the car as transportation. Common implementations are improvements to bicycle and pedestrian access, public transit right of ways, public transit fare subsidies and other related solutions.

Other solutions involve innovative mixes of ITS and parking systems. These systems can leverage existing technology infrastructure, to share information for the benefit of travellers.

Prepaid parking can be purchased at the same time that the event ticket is purchased. Purchased on the web, tickets with a bar-code identifying payment can be printed at home. The driver waves the paper with the bar code in front of a scanner at the parking lot entrance and is automatically admitted into the parking lot. Parking systems allow only one entry per bar code, eliminating potential fraud.



Photo courtesy of TPA North America Inc.

This system reserves a parking space for a patron that same way his families' seats or entry passes to the event are reserved. The driver proceeds directly to his parking lot with confidence that a space will be available for him.

Changeable Message Signs can alert drivers to the parking conditions that they will encounter. Such parking information systems are common in the Central Business District of European cities where the local municipality owns the parking lots and is keen to share the information. They have played an important role in maintaining the economic viability of downtown districts.

For special events, trailer-mounted Dynamic Message Signs can be deployed. The signs can be updated in real-time to reflect capacity of the parking lots. As lots become full, new messages direct cars to locations where parking is available. Further out from the event, this same type of sign can direct drivers to off-site parking locations where shuttles can transport the patrons into the event, reducing congestion and queuing at or near the location.

This information can be viewed on the web and personal devices, allowing drivers to make intelligent parking choices prior to departure or even modify the choice on route. Fusing datasets from a variety of sources gives the driver useful and timely information, reducing the stress of the commute and parking.



ITS Canada News

Update on ISO/TC204

By William Johnson, Chair CAC for ISO/TC204

ISO and Standards

International ITS standards are developed under the auspices of ISO, the International Organization for Standards (no, the word order is not an error! ISO is an anagram, not an acronym). ISO is a consortium of national standards bodies from over 100 countries and the Standards Council of Canada is our national member. The SCC authorizes a Canadian Advisory Committee (CAC) to oversee Canadian participation in the international activities of each ISO Technical Committee. The ISO Technical Committee 204 is responsible for international standards related to intelligent transport systems. The SCC authorized creation of the CAC for ISO/TC204 in 1994 based on the joint recommendation of ITS Canada and Transport Canada.

TC204 and ITS

There are 12 active working groups in TC204. They span the entire scope of the application of ITS to vehicles, infrastructure and control systems. The chair of the CAC works closely with the SCC Program Officer to facilitate the review of draft documents and voting on ballots. Countries can also initiate work items that, with the support of at least five member countries, can be developed through the various stages to finally emerge as final international standards (IS).

The 12 active working groups are each led by an international convener who is sponsored by their home country but who becomes responsible to the TC for the work program. This arrangement grants the convener independence of the sponsors of each work item while maintaining some coherent direction over the TC's work program. Canada sponsors Dr. Lewis Sabounghi as the International Convener of Working Group 7 – Fleet Management and Commercial Freight. Informally, Canada has sponsored the convener of sub-working group 10.6 – Traveller Information User Services Integration, Mr. Jackson Wang.

We note with regret that Jackson has recently resigned from this role and we thank him for his valuable leadership and technical contributions to the international activities of Working Group 10.

Highlights of 2006

TC204 completed work on the development of an international standard for "Data Dictionary and Message Sets for Electronic Identification and Monitoring of Dangerous Goods Transportation". This work item was originally proposed by Canada, and has engaged the contributions of the five participating countries and the support of the 23 member countries in the final ballot. ISO 17687 now passes into the realm of an international standard.

Another highlight of 2006 was completion of ISO 14827, Parts 1 and 2, "Data Interfaces Between Centres for Transport Information and Control Systems". Work is now underway to extend this international standard to include a profile based on XML for these data interfaces.

Report on Canadian ITS Standards Experience

A World Report on ITS Standards was completed in 2006 under the sponsorship of Asia Pacific Economic Cooperation (APEC) and ISO/TC204. The Canadian contribution was reported at a Workshop on Best Practices in Busan, Korea, in April 2006. These results will be made available in Canada as soon as publication is arranged. In the meantime, interested parties can contact the Chair of CAC for TC204.

Plenary in Cape Town

The South African Bureau of Standards hosted the fall 2006 TC204 plenary and working group meetings in October in Cape Town. This was the first time the plenary had been held outside of Europe, North America and Asia-Pacific. Despite the great distance to Cape Town, the meetings were very well attended. The Chair of the CAC and the Convener of WG7 represented Canada at the plenary.

The next meeting of the TC204 Plenary will take place in North America on April 27, 2007, in Lexington, Kentucky. As the venue is relatively accessible, we hope that there will be many delegates from Canada attending this session. The next North American Plenary Meeting of TC204 will take place in fall 2008 and Canada is considering an invitation to host that event. Stay tuned!

ITS in South Africa

By Paul Vorster, ITS South Africa

ITS in South Africa has grown rapidly in the preceding two years and hosting the FIFA Soccer World Cup is accelerating ITS deployment. Currently, there are two flagship projects, namely, the Gautrain Rapid Rail Link and the N1 Freeway Management Project.

Gautrain is a rapid rail link between Johannesburg and Pretoria and between Sandton and the International Airport (recently renamed as the OR Tambo Airport). Please visit www.gautrain.co.za for more details.

The N1 Freeway is the busiest road by far in South Africa and links the national capitol Pretoria with Johannesburg, South Africa's commercial capital. Suffering from serious congestion, the N1 Freeway Management Project is deploying CCTV cameras and various detectors linked by fibre optic to the National Management Centre that is responsible for activating EMS to respond to incidents. This is a project of the National Roads Agency.

The Metropolitan Governments of Johannesburg, Pretoria (Tshwane) and Ekurhuleni are cooperating with the National Roads Agency and the project is expanding from a pilot project into area-wide deployment.

FIFA Soccer World Cup 2010 will be hosted in South Africa and is giving rise to several other anticipated ITS deployments, such as integrated ticketing development. Other projects include the R8 billion taxi recapitalisation and mega upgrades to logistics infrastructure and rail projects, both freight and commuter.

Funding Announcement

On November 29, 2006, the governments of Canada and Ontario announced that they will team up to fund research to make Ontario transportation safer and more reliable, with an investment of \$930,000 in research and development projects on intelligent transportation systems. Each government will contribute \$465,000 for projects beginning now through to September 30, 2008.

The **University of Toronto** will oversee three projects totalling \$264,000, expected to be complete by fall 2008. Two of the projects will explore ways to make transit more convenient and attractive for passengers by increasing the level of service and making transit schedules and routes more flexible.

A third project will explore changes in the movement of goods by commercial vehicles that will provide up-to-date information on heavily used truck routes, which will help in planning and investing in future highway improvements.

These initiatives are funded by the governments of Canada and Ontario under the \$600-million Strategic Highway Infrastructure Program, which dedicates \$100 million for initiatives that better integrate the country's transportation system. One of these is the \$30-million intelligent transportation systems initiative, which includes applications such as advanced systems for traveller information, traffic management, public transport, commercial vehicle operations, emergency response management and vehicle safety.

For full details:

www.tc.gc.ca/mediaroom/releases/nat/2006/06-h168e.htm



The e-Transport Conference and Exhibition is being hosted by ITS South Africa on March 6-9, 2007, in Pretoria. The theme is "Sustainable Public Transport for Soccer World Cup 2010". ITS Canada is planning a trade mission to coincide with this event in order to investigate the opportunities and possible local partnership options. Visit www.sasits.com or contact Paul Vorster (paul@sasits.com) for details.



ITS Canada News

Members in the News



On November 9, 2006, **Trapeze Group** announced the strengthening of the Company's commitment to provide intelligent transportation systems through the creation of a new Mobile Hardware & Communications division and the integration of the company's existing product development and ITS development teams. The changes are designed to further enhance Trapeze's enterprise offering in the demand response and fixed route sectors. The new Division will focus on integrating Trapeze products with third-party hardware and software to deliver complete end-to-end solutions, including the communications infrastructure required to make this happen.



TransLink's Golden Ears Bridge Project was awarded the Gold Award for Project Financing at the Canadian Council for Public Private Partnerships 2006 National Awards for Innovation and Excellence ceremony held in Toronto in early November.

The award recognizes the project's innovative approach that will result in six to ten million dollars in savings to taxpayers, compared to a project solely delivered by the public sector. It also recognizes the project's success achieving a fixed-price, date-certain contract and transferring responsibility for construction costs, on-time delivery and operating performance to the private sector.

The project will improve the economic competitiveness of Fraser Valley, improve the flow of commercial goods and business traffic and provide community benefits including new travel choices for transit users, cyclists and pedestrians.



NAVTEQ has been selected by ROUTE 66 to supply the latest European digital map data for the recently launched Chicago series -- four, ultra slim designed, portable car navigation systems. The Chicago series is supplied with a detailed country map or a pan-European map and features a 2D/3D view, plus a day-and-night view, fuzzy search, free safety camera information for most European countries and advanced infotainment such as an MP3 player with earphones.

The series is one of the slimmest and lightest widescreen PNDs (personal navigation devices) currently available. With the launch of the Chicago series, ROUTE 66 is making a significant entry into the portable navigation hardware market.



Earlier this year, **Delcan Corporation** won an assignment in South Africa to develop an ITS road map for the city of Johannesburg as it prepares for the FIFA World Cup Soccer 2010. The project involves the review of ITS technologies for the city to combat day-to-day congestion problems, as well as dealing with additional traffic loading during the 2010 event.

The Call for Papers deadline for the 14th World Congress on ITS

The deadline to submit a paper for the **14th World Congress on Intelligent Transport Systems**, scheduled for October 9 to 13, 2007, in Beijing, China, is **January 31, 2007**.

Papers must be submitted through the website of the 14th World Congress on ITS at www.itsworldcongress.cn



Upcoming Events

IBTTA's Transportation Finance Summit
December 3 to 5, 2006 – Washington, D.C.
www.ibtta.org/Events

First Middle-East ITS Conference
December 4 and 5, 2006 – Dubai, UAE
www.its-arab.org

ITS Canada Training Workshop: Intelligent Transportatton Systems and Transit
December 7, 2006 – Montreal, Quebec
www.itscanada.ca/montreal2006

2007

Congres ATEC-ITS France
January 30 and 31, 2007 – Paris, France
www.atec-tec.net

ITS Conference
February 1 and 2, 2007 – New Delhi, India
www.euindia.info

ITS Technology Fair
February 14, 2007 – Washington, D.C.
www.itsa.org/techfair.html

ANDINATRAFFIC 2007
February 26 to 28, 2007 – Bogotá, Colombia
www.andinatraffic.com/sa3t/home/index.cfm

SASITS e-Transport Conference
March 6 to 8, 2007 – Pretoria, South Africa
www.sasits.com

Intertraffic China
March 15 to 17, 2007 – Beijing China
www.intertraffic.com

ITS Canada Annual Conference

Save the dates ... April 29 to May 1, 2007
Call For Abstracts ... due January 19, 2007

Le 42e congrès annuel de l'AQTR
April 2 to 4, 2007 – Montreal, QC
ctasse@aqtr.qc.ca

TAC's Spring 2007 Technical Meetings
April 11 to 18, 2007 – Ottawa, Ontario
www.tac-atc.ca

Smart Moving Conference 2007 / Traffex 2007
April 17 to 19, 2007 – Birmingham, UK
"SMART Solutions for Today" – call for papers
www.its-uk.org.uk

ITS Canada Annual Conference and General Meeting
April 29 to May 1, 2007 – Niagara Falls, Ontario
www.itscanada.ca/niagara2007

CITE 2007 Conference
May 6 to 9, 2007 – Toronto, Ontario
www.itetoronto.ca

Intertraffic Istanbul
May 9 to 11, 2007 – Istanbul, Turkey
www.intertraffic.com

XVII Canadian Multidisciplinary Road Safety Conference
June 3 to 6, 2007 – Montreal, Quebec
www.cmrrsc.polymtl.ca

ITS America 2007 Annual Meeting and Exposition
June 4 to 6, 2007 – Palm Springs, California
www.itsa.org/annualmeeting.html

European ITS Congress and Exhibition
June 18 to 20, 2007 – Aalborg, Denmark
www.itsineurope.com/congress/index.cfm

23rd World Road Congress
September 17 to 21, 2007 – Paris, France
www.paris2007-route.fr

14th World Congress on ITS
October 9 to 13, 2007 – Beijing, China
Call for Papers – deadline January 15, 2007
www.itsa.org