



A Message from ITS Canada's Chairman

Throughout 2009, ITS Canada set the stage to become a more visible focus for the application of technology to make transportation of people and goods safer, more efficient and sustainable. The decision to engage a full-time Executive Director and hire Carl was milestone for the organization.

In October, your Board met in Toronto for a strategic planning session, and we are in the midst of establishing a new five-year plan for ITS Canada. One outcome of that session was adoption of a new corporate mission statement:

The mission of ITS Canada is to lead the promotion and advancement of intelligent transportation systems and services to benefit Canadians.

This mission statement sets out what this organization needs to be: an advocate for all Canadians to develop and effectively deploy intelligent transportation systems. Further details on the planning process will be announced as they unfold. We expect to be implementing the major components of that plan by the time we see you at the Annual Conference and General Meeting in Ottawa (June 13-16, 2010).

511 is also very topical and, combined with the research efforts continuing in North America on what is now called 'IntelliDrive', the year will prove to be a very exciting one for travellers in Canada. A national 511 Summit was held in Ottawa in September. The report from that event appears on Page 2. It is time for the rest of Canada to move on this very important area.

In November, I had an opportunity to speak to the Atlantic Provinces Section of the ITE, in Fredericton, on the topic, "ITS in Canada and ITS Canada". I also took advantage of being in the region to meet with the Deputy Ministers responsible for Transportation in Nova Scotia, Prince Edward Island and New Brunswick. Each of these discussions identified opportunities for ITS Canada. In Nova Scotia, I learned of large-scale efforts to apply technology to maximize productivity in the Port of Halifax. In New Brunswick, I learned of significant productivity gains reported by the trucking industry following installation of "weigh in motion" systems. The success of these and other applications are the key to increased right-sized technology adoption in the region – and for ITS Canada an increased membership base.

In December, ITS Canada and several member companies participated in the annual conference of the Association of Intelligent Transportation Systems India, held in Delhi. Participants were unanimous that the mission enabled them to establish useful new contacts and that the nation of India is an unsurpassed opportunity for the Canadian ITS industry. See details, Page 4.

*Michael Bailey,
Chairman – ITS Canada*

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National 511 Summit: Here for the Long Haul!

By Carl Kuhnke, ITS Canada's Executive Director

As many of you will know Transport Canada, in cooperation with ITS Canada, organized and hosted a national 511 Summit in Ottawa on the 8th and 9th of September. Close to 100 specialists from around the country gathered to review progress, examine the current status, and chart a pathway for further implementation across the country.

A professional facilitator led interactive workshops and panel discussions led by peers. The second day was devoted to a strategy session for implementers, with discussions in the morning that identified activities to advance each Key Result Area developed as a result of the panel sessions and workshops the day before; the afternoon discussions focused on the issue of 511 Governance for Canada.

Transport Canada's Assistant Deputy Minister Kristine Burr reviewed the benefits of implementing the 511 Traveller Information System in Canada, including:

1. Access to up-to-date or real-time information regarding routing and modal choices
2. Real-time road and weather conditions and construction zones
3. The ultimate benefit to the economy through, among other things, enhancing the National Tourism Strategy.

She noted that several jurisdictions are offering travel information already, with Nova Scotia, Quebec and Yukon with fully operational systems, and others continuing to work towards full implementation. While many challenges exist in regards to implementing 511, including data exchange and the issue of privacy, significant opportunities exist by way of advanced technology systems such as cell phones, PDAs, and web-based information services. Kristine encouraged the participants to actively contribute and work through the challenges of implementing 511.

The various panels worked towards identifying major opportunities and challenges. The key to successful 511 implementation across the country will be integration (including considerations for the USA), and thus standards need to be examined. Environment Canada leads on road weather information and this is but one component that will need to be fully integrated.

The private sector panel also identified integration, in this case data, as critical to success. That leads to questions surrounding funding of 511 systems, and more so operating them. Urban systems will also have different needs than rural systems, and these factors are also important. Finally, technology is now moving so rapidly, including vehicle-vehicle and vehicle-infrastructure, that 511 systems will be forced to stay current or risk becoming irrelevant.

511 was viewed by many participants as having the potential to create a modal shift in transportation if done effectively and flexibly. National oversight would be ideal, with every jurisdiction still enabling its own needs. A cross-country coalition is envisaged. Basic 511 information will need to be free but enhanced options, probably provided either by or through private companies, is also seen as a likely prospect.

Governance was addressed in the smaller "implementer" session on the second day. Many models were discussed, including a national non-profit organization with funding from the various jurisdictions, through to oversight by the current intergovernmental Council of Deputy (Transportation) Ministers.

Participants are now awaiting the next steps in the process, including the final report on the Summit that should be released by the time this article appears. Various levels of government will need to examine options. A western Canada/USA 511 Working Group is planned for the February/March timeframe, and will likely lead to specific 511 sessions at ITS Canada's Annual Conference and General Meeting, being held June 13-16, 2010, in Ottawa.



*ITS Canada
Welcomes New Member*

CORPORATE

EMIspheres Technologies,
Societe du Groupe Eminencia

University of Toronto Expands ITS Centre

By Heather Navarra, ITS Canada

On November 25, the Department of Civil Engineering launched two exciting additions to its transportation portfolio, the new **Centre for Urban Freight Analysis (CUFA)** and **ONE-ITS**, a virtual ITS Centre without borders. The two initiatives are part of the modernized and expanded ITS Centre at the University of Toronto. ITS Canada was invited to participate in the launch announcement, which included a welcome from Professor Brenda McCabe, Chair of the Department of Civil Engineering, Dean Cristina Amon of the Faculty of Applied Science and Engineering, and Professor Paul Young, Vice President of Research at the University. Paul spoke of the collaborative, multi-disciplinary research being done through the **CUFA** and **ONE-ITS** programs, with a dozen academic institutions involved in the latter from across Canada and around the world. He recognized the participation of CANARIE, Transport Canada, the Ministry of Transportation of Ontario (MTO), the City of Toronto and Turnpike Global Technologies. CANARIE CEO Guy Bujold also spoke, noting the innovative research being undertaken by ONE-ITS on real-life issues that affect the economy and the environment, and predicting the results will contribute to the well being of all Canadians. Turnpike Global Technologies COO Colin Warkentin spoke about expected long-term benefits to the private sector of information sharing initiatives such as CUFA.

About the Centre for Urban Freight Analysis

Professor Matthew Roorda introduced CUFA, noting the involvement of all levels of government, private sector participants and academics to develop a collaborative infrastructure for world-class research in urban goods movement. The infrastructure includes a new visualization centre, new computing and data archiving facilities, and a new roadside data collection system, with Bluetooth detectors installed on MTO freeways for retrieving truck GPS and engine data through Turnpike Global Technologies' truck tracking system. The MTO also shares with the ITS Centre traffic management data that are available at their Traffic Operations Centre. Linking the two systems will allow for improved estimates of freeway travel time, real-time truck location information for dispatchers at trucking firms and congestion avoidance for commercial vehicles.



Matt Roorda (left) and Baher Abdulhai

Research underway at CUFA includes the development of freight modelling and forecasting methods to inform public sector decision-making, tools for industry including truck navigation (providing real-time input for parallel routes) and optimization techniques for fleet management. Current projects include analysis and simulation of hybrid electric truck fuel consumption and emissions, optimal deployment of hybrid trucks in mixed hybrid/diesel fleets, and modelling of commercial vehicle tours using GPS data. CUFA has recently conducted simulations of truck-only lanes on Toronto area freeways, analysis of auto industry commodity flows through Ontario, and various types of freight data collection. All of these research initiatives have potential benefits for goods movements in urban areas.

Online Network-Enabled ITS (ONE-ITS)

Professors Baher Abdulhai (U of Toronto) and Mohamed El-Darieby (U of Regina) presented an update on ONE-ITS, a platform for collaboration in ITS research that facilitates information and resource sharing via technical and social networking. Since most universities don't have a 'critical mass' in people or resources, ONE-ITS was formed to share data, software, equipment, knowledge and expertise, to harness and build on the collective ITS intelligence. All universities in Canada with transportation research programs are involved; collaborators can both contribute and benefit, while remaining the sole owner of any intellectual property they develop. An online demonstration revealed a sophisticated platform with the ability to tailor access to information to each user's specific needs.

ITS Canada Mission to India

By Scott Stewart – IBI Group

Chair – ITS Canada Export Committee

ITS Canada had a successful mission to India and the ATIS Conference in New Delhi in early December. Mission representatives included Michael Bailey, NAVTEQ (Chair of ITS Canada); John Freund, SIRIT; John Greenough, LEA Consulting; JD Hassan, Skymeter; Joseph Lam, Delcan; Rish Malhotra, IRD; and Scott Stewart, IBI Group (Chair of ITS Canada's Export Committee).



ITS Canada participated in the Plenary Session of the Conference and had a dedicated session where the Canadian representatives were able to present:

- the Canadian national and regional architectures
- practical applications of ITS technology and systems to improve traffic flow and safety
- security in transportation
- adaptation of RFID technology to tolling.

Mr. Viney Gupta of the Canadian High Commission played a very important role in setting up the program, ensuring a good representation of Canadian content throughout the program.

ITS in the News

Global News is developing a national series on transportation and gridlock. The first segment, televised on Global's evening broadcast on September 13, 2009, provided excellent promotion for the field of ITS in general. The segment included interviews, including ITS Canada's Executive Director Carl Kuhnke, as well as information incorporating vehicle-to-vehicle and vehicle-to-pedestrian developments. The second segment, aired on Global in the Vancouver area in late November, highlights TransLink's initiatives. The videos are available from ITS Canada's website home page: www.itscanada.ca

Mission members were also able to acquire a better understanding of the needs that India faces, as well as the major opportunities. India is growing rapidly, with a current growth rate of 8 percent. One of the major limitations to the ultimate prosperity of the country is a lack of infrastructure. Consequently, India is planning on constructing 16,000 kilometres of national highways using the PPP model. All of these highways will require tolling as well as traffic management systems.

There are also major opportunities with:

- airports, as there is a major expansion of international and regional services
- the railroad, including work at the rail terminals and yards
- major expansion of public transit, including LRT and BRT services.

Mission participants used this opportunity to meet directly with government and private sector representatives to discuss specific projects and opportunities. ITS Canada and ATIS India held discussions about future cooperation. This will be the subject of future discussions, with the potential for a cooperative agreement. The Canadian High Commission contributed a tasting of Canadian wine at the closing event.



Presenters included Mario Ste-Marie, Minister-Counsellor and Senior Trade Commissioner, Foreign Affairs and International Trade (left) and Michael Bailey, ITS Canada

Incoming Chinese Delegation

By Carl Kuhnke, ITS Canada

Under a January 2007 MOU on *Technical Cooperation in Highway and Waterway Transportation*, and subsequent April 2009 *Action Plan on Gateway Cooperation*, a large Chinese delegation met with Transport Canada in Toronto on October 26th to discuss joint research on advanced technology applications and supply chain management. ITS Canada was invited to attend to present our intelligent transportation experience in Canada and how the two countries might work together in the development and deployment of ITS technologies.

The delegation included He Jianhua, Director General of the Science and Technology Department of the Ministry of Transport, Wang Xiaojing, Vice Chair of ITS China (and Chief Engineer, Highway Research Institute), and several other officials. Hong Fang of the IBI Group and Joseph Lam of Delcan, and Past Chair of ITS Canada, provided excellent briefings for the group on systems management, 511, traveller information and a host of other Canadian capabilities following an introduction to ITS in Canada by your ED.

The Chinese delegation was thankful for the information presented and expressed an interest in bringing a delegation to the ITS Canada Annual Conference and General Meeting in Ottawa (June 13-16, 2010). The Chinese may submit technical paper proposals over the coming months.



ITS Export Development

*By Scott Stewart – IBI Group,
Chair – ITS Canada Export Committee*

ITS Canada Directors and member companies are increasingly proactive around the globe as they seek opportunities in the rapidly developing sector of intelligent transportation. Once the purview of G8 nations, population and manufactured goods growth in industrializing countries have been markedly higher than the G8. Thus, Canada's largest ITS market growth opportunities are in Asia, the Middle East and Latin America, as those areas of the world struggle increasingly with the safety, effectiveness and efficiency of moving vast quantities of persons and goods to destinations and markets.

Last year, ITS Canada members visited over 30 countries, promoting not only their own products and services, but ITS Canada and Canadian ITS capabilities. They catalyzed numerous private/public partnerships and, as a result, ITS Canada also cemented formal relations with foreign ITS societies to encourage new opportunities for export, and to lay the groundwork for training and education opportunities. Assisting our counterparts in the development of training modules and educational plans for end users will open up opportunities for the Canadian ITS industry.

ITS Canada's members are also involved in multinational committees, developing global ITS standards. Standards provide Canadian ITS companies with better access to export markets.

The next three years will see ITS Canada develop firm market intelligence data, in concert with government partners, that will provide members with opportunities targeted specifically at ITS. Along with outbound missions and attendance at critical world events, inbound missions comprised of experts will take Canadian expertise back to their home countries for consideration and implementation.

With a world market forecast for the ITS industry of \$66 billion by 2011, I encourage any members interested in expanding internationally to contact ITS Canada for more information.

Real Time Travel Updates – New York and Ontario

By Tom George, NITTEC Executive Director

To help manage travel through the region and across the international border, the Niagara International Transportation Technology Coalition (NITTEC) is pleased to announce the availability of MYNITTEC.

MYNITTEC is a personalized subscriber system jointly developed by NITTEC and the University at Buffalo (UB) that will provide real-time traveller updates directly to users' computers, mobile devices and cell phones. This service is provided free of charge to assist regional travellers in improving mobility, making travel more reliable, and avoiding incidents and congestion on the regional expressway network and border crossings.



Through collaboration with the UB School of Engineering and Applied Sciences, NITTEC is providing the system to enhance traveller information in the region. "The cooperation and collaboration between UB's Transportation Systems Engineering Laboratory and NITTEC provided a good opportunity to utilize the knowledge and skills learned at UB in working on a real-world project, while providing benefits to the community," said Shan Huang, Principal Project Developer and a Ph.D. student working with Adel Sadek, Associate Professor in the Department of Civil, Structural and Environmental Engineering at UB.

Users can register for MYNITTEC from the homepage or Crossroads map page of the NITTEC website (www.nittec.ca). By completing the no cost registration, users are allowed to customize the traveller information received either by email or text or both. The individual routes by direction and segment of expressway or specific border crossing can be selected to reflect the registrant's travel patterns. Notifications will be received only during the particular timeframes selected.

"This service has been developed to help ease daily commutes by providing information on the condition of the transportation system. We want to help drivers make decisions that reduce their time in congestion," said Tom George, Executive Director of NITTEC. "This is another example of regional transportation partners working together to improve mobility through real-time information sharing."

The MYNITTEC system will notify travellers of incidents and congestion on the regional transportation system. Users can also choose to receive notifications for alternative routes to their normal travel patterns. By receiving information on multiple expressways and bridges, the user can make informed decisions on route selection as conditions change. The information provided by the system is collected by both NITTEC and Ontario Ministry of Transportation Compass operation centers that operate 24 hours a day, 365 days a year.

Travellers registering for this service are reminded of the restrictions on the use of mobile devices in vehicles. The system utilizes technology to improve travel in the region, but should not be used in a fashion that is illegal or would create unsafe conditions.

ITS Canada Scholarship

ITS Canada has announced the kick-off of its 2010 scholarship program. Commemorating the contribution that Dr. Michel Van Aerde made to the ITS industry, ITS Canada's Michel Van Aerde Memorial Scholarship is awarded annually for graduate studies in intelligent transportation systems, and is tenable at any Canadian university. The selection committee will recommend an award based on academic ability, stated career objectives, demonstrated understanding of ITS, an interview with the supervising professor (where applicable), and supporting letters of reference. To be eligible, candidates must be Canadian citizens or landed immigrants, and registered as full-time students in a graduate studies program at a Canadian university. The submission deadline is **March 15, 2010**. Full details are available on ITS Canada's website at www.itscanada.ca.



ITS Canada News

Members in the News

Fortran Traffic, a Canadian supplier of traffic products, and **McCain**, an American manufacturer of products for the traffic, parking and transit industries, have announced a sole distributor agreement between the two companies. With the new partnership, Fortran Traffic will be the exclusive distributor of McCain's product lines throughout Canada. McCain offers a wide range of products, including central control software, signals, NEMA (National Electrical Manufacturers Association) and 170 controllers, controller cabinets, and VMS. To date, Fortan has 14 partners that provide diverse products to Canadian municipalities.

INIT has been presented the 2009 ITCS Innovations Award by the ITCS expert panel of the German Transport Association (VDV). The award recognizes innovative achievements in the field of Intermodal Transport Control Systems (ITCS). The jury based their decision on the fact that the innovative feature "online detour" is a practice-oriented and user-directed function for incident management. The benefit to drivers from the new function is the capability to receive detour and route information, as well as the adjusted schedule, on their onboard computer, with audible turn-by-turn instructions on the new route and a graphical interface. In addition, the ad hoc defined detours and information on schedule changes are automatically transferred to the real-time passenger information system and published via connected media. Thus, passengers onboard and at stops receive correct information on the servicing of the stops and the actual departure times – even in the case of detours on short notice. The dispatchers in the control center benefit from a new module that supports their daily routine.

Image Sensing Systems (ISS) has announced that it has supplied the City of New York (NYC) with the latest generation RTMS G4 radar units for use in mid-block traffic detection. The units will be installed at nearly 200 intersections, in four different boroughs of the city, as a part of the TOPICS IV project. The project is an expansion of a strategic program of the NYC Department of Transportation to coordinate traffic control in several boroughs by using a centralized computer control, thereby improving traffic flow across the city.

International Road Dynamics Inc. (IRD) has been awarded a \$965,000 Cdn. contract by the Wisconsin Department of Transportation (WisDOT) to install and maintain three virtual weigh stations and bridge monitoring systems. The systems will be located on selected ramps of the Milwaukee Zoo Interchange. The bridges immediately following these ramps have restricted vehicle weight limitations that are being actively enforced. Virtual Weigh Stations complement existing permanent truck inspection stations and provide an option to pre-screen heavy trucks at locations where real estate is limited. A Virtual Weigh Station strategically located in advance of a bridge can provide real-time monitoring and historical data of the vehicle loading. As a truck passes the Virtual Weigh Station, the system produces a unique record containing a vehicle overview image, axle and gross vehicle weights, speed, and classification information. The system will then automatically determine whether the passing truck is weight compliant. This information can be monitored remotely by officers using laptops in state patrol cars or by state personnel from a central office computer. IRD has supplied more than 60 Virtual Weigh Stations throughout North America.

TransCore has been awarded a US\$35 million contract by the Bay Area Toll Authority (BATA) to design, develop, test, install and maintain a new advanced toll collection and accounting system for seven San Francisco Bay area bridges. The contract includes a six-year maintenance option. Design is underway and is due for completion by 2012. The seven toll bridges in the San Francisco Bay area are owned and operated by the state, with tolls administered by BATA. The bridges provide essential transportation arteries for the travelling public, accommodating on average a total of more than 348,000 vehicles per day and support 73 toll lanes.

The 23rd straight year without an in-service collision; the lowest ever rate of passenger injury; the fifth consecutive year with no significant accident losses (i.e., greater than \$10,000): those are just a few of the reasons for **TransLink's** SkyTrain receiving BC's highest industrial safety honour, recognized as "Best Organization" at November's fifth annual Lieutenant-Governor's Awards for Public Safety.



Upcoming Events ... Visit ITS Canada's website for more events

2010 TRB 89th Annual Meeting

January 10 to 14, 2010 – Washington, D.C.
www.trb.org

Road User Charging Conference

January 13, 2010 – London, England
www.its-uk.org.uk/events

15th SIRWEC Conference 2010 (road weather)

February 5 to 7, 2010 – Quebec City, Quebec
www.sirwec.org

2010 International Winter Road Congress

February 8 to 11, 2010 – Quebec City, Quebec
www.aipcrquebec2010.org

NW Transportation Conference

February 9 to 11, 2010 – Corvallis, Oregon
<http://kiewit.oregonstate.edu/nwtc>

8th Annual Urban Transportation Summit

March 2 and 3, 2010 – Toronto, Ontario
www.strategyinstitute.com/dsp_conferences.php

16th International Road Federation (IRF) World Road Meeting

May 25 to 28, 2010 – Lisbon Portugal
www.irf2010.com

FISITA World Automotive Congress

May 30 to June 4, 2010 – Budapest, Hungary
www.fisita2010.com

Canadian Multidisciplinary Road Safety Conference

June 6 to 9, 2010 – Niagara Falls, Ontario
www.carsp.ca

2010 Canadian Telecom Summit

June 7 to June 9, 2010 – Toronto, Ontario
www.telecomsummit.com

Canadian Society for Civil Engineering Annual Conference

June 9 to 12, 2010 – Winnipeg, Manitoba
www.csce.ca/2010/annual

ITS Canada Annual Conference and General Mtg.

June 13 to 16, 2010 – Ottawa, Ontario
www.itscanada.ca/ottawa2010

National Rural ITS Conference

August 1-4, 2010 – Huntington, West Virginia
www.nritsconference.org

17th ITS World Congress

October 25 to 29, 2010 – Busan, Korea
www.itsworldcongress.kr

Did you know?

TRB's Transportation Research Information Service (TRIS) Online is the largest and most comprehensive source of information on published transportation research available free on the web. TRIS Online is a joint project between the Bureau of Transportation Statistics (BTS) and TRB. TRIS Online provides access to almost 550,000 records of published transportation research through a user-friendly searchable database. More than 500 serial publications are regularly indexed and abstracted for the database ... <http://ntlsearch.bts.gov/tris/index.do>



**Plan now to attend
ITS Canada's Annual Conference and General Meeting
June 13 - 16, 2010 ~ Ottawa, Ontario, Canada**

**Theme: "ITS for Efficient, Safe and Clean Transport"
CALL FOR ABSTRACTS ... deadline January 29, 2010**

www.itscanada.ca/ottawa2010