ITS Canada News

511 in Canada
CRTC Application Update

By Paul Frigon, 511 Coordinator

During September and October, interrogatories were received from several telephone companies and responses were filed by the Canada 511 Consortium. It is good news that, in the final telephone company comments, all of them now support the assignment of the 511 number as a service for weather and traveller information in Canada.

Although a last minute interrogatory was filed by the Canadian Association for Suicide Prevention (CASP), essentially objecting to the Canada 511 Consortium's request for 511, the CRTC has deferred comment on the CASP submission until a decision on the Consortium's application has been reached.

The Canada 511 Consortium's application for 511 is now complete and all parties are awaiting a CRTC decision, which is anticipated in the first quarter of 2006. There still remains a possibility that the Canada 511 Consortium will be asked to provide additional information in the coming months, to assist the CRTC in their decision. To this end, the Canada 511 Consortium will continue to address items relating to governance, network design and the Canada 511 Consortium's mandate. For example, a network design subcommittee is being formed, and will consist of technical representatives from Consortium members.

Upon the successful conclusion of the CRTC regulatory process, it is anticipated that a single point of contact will be identified by the Canada 511 Consortium to act as their agent. This agent will work with the 511 Service Provider(s) and other telecommunications service providers, as required, and will also coordinate activities of the Consortium members, including the identification and resolution of any issues that may arise. For further details on the Canada 511 application, please visit:
www.itscanada.ca/english/project511.htm.

For details on 511 deployment in the United States, please see Page 3.

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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

ITS Canada News

26th Plenary Meeting of ISO Technical Committee 204

By William Johnson, Head of Delegation Canada, and Chair, Standards Council of Canada, Canadian Advisory Committee for ISO/TC 204

The 26th Plenary Meeting of the ISO Technical Committee 204 (ITS) was held in Portland, Oregon, on November 4, 2005. The Plenary meeting is the focal point of the standards development business of ISO/TC 204. Working group meetings were held earlier that week. This report provides a brief overview of the proceedings.

This was the most successful TC 204 meeting yet, with 160 delegates from 17 countries participating in the working group and plenary meetings. There were four members of the Canadian delegation:

1) Dr. William Johnson, Head of Delegation, representing the Standards Council of Canada
2) Dr. Lewis Sabounghi, International Convenor for Working Group 7 (General Fleet Management and Commercial Freight)
3) Mr. Jackson Wang, Canadian expert to Working Group 10 (Traveller Information)
4) Dr. Christina Rudin-Brown, Canadian expert to Working Group 14 (Vehicle/Roadway Warning).

Highlights

The Working Group meetings of particular interest to Canada included Mobile Databases (WG 3), General Fleet Management and Commercial Freight (WG 7), Public Transport and Emergency (WG 8), Traffic Management (WG 9), Traveller Information (WG 10), and Vehicle-Roadway Warning (WG 14). Not all Working Groups meet during the ISO/TC 204 week. The DSRC (WG 15) and the Communications (WG 16) working groups did not meet; WG 15 is winding down and WG 16 is too "busy" with four sub working groups to meet in the same week. To learn more about the TC 204 meetings in Portland, the Head of Delegation's trip report is available at:
www.itscanada.ca/standardscommittee/newsandevents.htm

The Delegation from Japan presented an excellent report (in English) entitled "*Standardization Activities in Japan*". This report described the relationship between ITS standards development in Japan and the international work of ISO/TC 204. Japan has an active and productive program of activity related to ITS standards development.

It is supported by the Japanese automotive industry and by public agencies. This report is both an inspiration on "how to do it right" as well as a model for other countries to use for reporting their ITS standards development activities.

ISO/TC 204 has a joint project with the APEC/Transport Working Group to conduct a comprehensive study of ITS standards policy and development status in countries worldwide. The first step in 2005 was to survey ITS standards development and standards deployment activities in APEC and TC 204 countries. Canada participated in this survey, along with 19 other countries and 4 international standards development organizations. The project report entitled "*Worldwide Report on ITS Standards*" (WRITSS) will enable member countries to benchmark their own progress against other countries. Due in February 2006, it will be used to animate an international workshop planned for April in Busan, Korea, in conjunction with the next ISO/TC 204 meeting.

TC 204 is enjoying continued growth in international recognition and in attendance at its meetings. The next Plenary Meetings will be hosted by Korea in April 2006 and by South Africa in October 2006. For further information about ISO/TC 204 or the outcomes of the meetings in Portland, contact the Head of Delegation, William Johnson, at johnswf@attglobal.net.

ITS Canada Welcomes New Members

SUSTAINING CORPORATE

Serco Group

CORPORATE

DM Solutions Group

Integrated Vehicle Technologies

Transportation Project Announcements

Unique Highway Inspection Station Under Construction at Saint-Bernard-De-Lacolle

On November 25, 2005, the start of construction of an inspection station on Highway 15 at Saint-Bernard-de-Lacolle was announced. The project, an innovation for Quebec and for Canada, is being carried out jointly by the Government of Canada, the SAAQ [Quebec automobile insurance corporation] and the Quebec Department of Transport, which is also responsible for the implementation of the project.

The work involves the construction of a control station on Highway 15, situated approximately 2.7 kilometres north of the border. This station will use intelligent transportation systems, including a vehicle detecting system, an embedded scale to weigh heavy vehicles on the highway, automated identification systems for heavy vehicles made up of a transmitter/receiver and cameras to provide optical recognition of licence plates, and variable message signs.

The ITS equipment in this new station will be integrated into the computer systems of the SAAQ, which will allow highway controllers to screen heavy vehicles before they are required to report for inspection. The station should be operational by fall 2006, when a six-month testing period will begin. The total investment for this project is $21.6 million.

Other work underway to improve the safety and efficiency of the Highway 15 trade corridor includes development of a congestion detection system on Highway 15 South, improvement of existing lighting and installation of new lighting along the centre strip, and landscaping to improve the look of the gateway for traffic entering Quebec.

For full details:
www.tc.gc.ca/mediaroom/releases/nat/2005/05-h267e.htm

Government of Canada and York Region To Study Better Traffic Management

On November 28, 2005, Transport Canada, along with several municipalities in the Greater Toronto Area, announced a study of opportunities for integrating traffic management systems in the region.

The study will examine how the various traffic management systems in the Greater Toronto region could be integrated to provide effective centre-to-centre communications to improve traffic flow, as well as developing a regional traveller information system to provide commuters with information on traffic conditions. The Government of Canada is prepared to contribute up to $250,000 per municipality to undertake this study.

Federal funding will be provided under the Strategic Highway Infrastructure Program, a $600-million program to improve highway infrastructure across Canada. Part of this funding, $100 million, is earmarked for initiatives that better integrate the country's transportation system. Funding for the study is dependent upon the signing of contribution agreements. For full details:
www.tc.gc.ca/mediaroom/releases/nat/2005/05-h268e.htm

511 Deployment in the U.S.

Usage statistics for 511 telephone services nationwide in October 2005, as reported to the 511 Deployment Coalition, were:

- 1,199,773 total calls
- Over 41 million calls nationwide since inception
- 14 consecutive months with over 1 million calls
- 511 service was available to over 83 million Americans (28 percent)
- Systems deployed for one year saw a 9.11 percent increase in call volumes compared to October 2004
- The San Francisco Bay Area service set a new national monthly call volume record and received its 8 millionth call.

ITS Canada News

Intelligent Transportation Systems Project Funding

In January 2005, a total of $5 million in funding for twenty-five new projects was announced under Transport Canada's Intelligent Transportation Systems (ITS) Plan. The winning projects will take place in various locations across Canada. Details on all of the projects are available at www.tc.gc.ca/mediaroom/releases/nat/2005/05-h001e.htm.

By Lizuarte Simas, Regional Municipality of York
Funding awarded: $250,000
Total cost of proposal: $500,000

This project will result in the deployment of an Adaptive Traffic Control (ATC) system that will become part of York Region's strategic infrastructure for the delivery of traffic management and control services. The system will satisfy and support the following user services and user sub-services of the traffic management services (user services bundles) of the ITS Architecture for Canada:

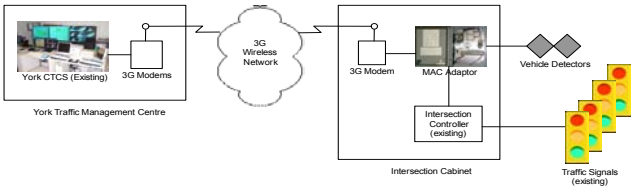
- Surface Street Control
- Operations and Maintenance.

Operational benefits of the ATC system to York Region will include the following:

- Multi-criteria ATC algorithms that cater for a wide range of traffic conditions, including over-saturated and congested situations
- Distinctive ATC criteria (i.e., maximum green bandwidth, minimum delays and stops, queue balancing and gating) are applied to optimize signal timings for prevailing traffic conditions
- Flexible detector configuration requirements enable users to optimize detector coverage, while minimizing capital costs, for better data collection
- Reduced effort to update and maintain signal timing plans
- Improved traffic operational efficiency and reduced traffic congestion in key corridors
- Seamless integration with the Region's Centralized Traffic Control System (CTCS) to provide a complete set of alternative traffic control strategies as required, including free operation, time based coordination, traffic responsive control and traffic adaptive control
- Open system architecture and communications protocol, with a technology growth path that can accommodate changing information technologies.

Canada

The project will add the ATC package to the existing CTCS. These new features will be evaluated on a set of intersections in the Region using 3G wireless communications. An overview of the system is illustrated below.



ATC requires upgrades to the CTCS and intersection as follows.

York Traffic Management Centre:
- Traffic adaptive software upgrades to the existing CTCS
- Add communications modems for access to 3G network.

Intersection:
- Add vehicle detectors (loops)
- Add MAC (Multi-criteria Adaptive Control) Adaptor connected to the existing intersection controller
- Add communications modems for access to 3G network.

The MAC adaptor installed at the intersection is responsible for gathering the traffic data from the vehicle detectors and signal cycle timing operation of the controller, coordinating this information, and performing local tactical control of the intersection.

This project is being undertaken in partnership with Delcan Corporation.

University of British Columbia's New Transit Centre

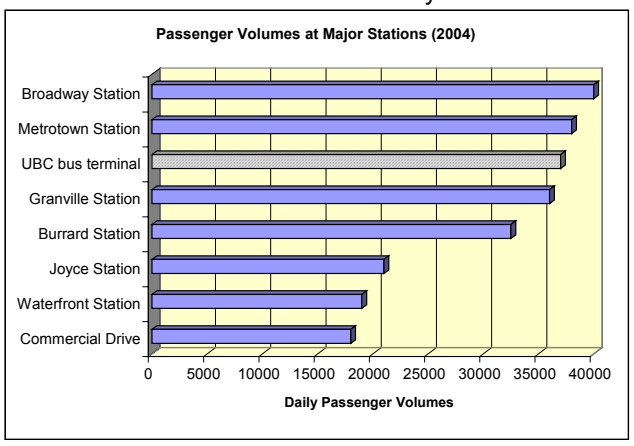
By Keenan Kitasaka and Graeme Masterton, TransLink

TransLink's universal pass system serves more than 60,000 students at Simon Fraser University and the University of British Columbia. As reported in the May/June issue of ITS Canada's newsletter, student referendums to extend the Vancity U-Pass Program at SFU and UBC until August 2008, add a summer U-Pass at UBC, and increase the monthly fee for students passed successfully.

Designed to increase transit ridership, U-Pass provides students with unlimited travel on the region's bus, rapid transit, and passenger ferry services. Under this successful program, transit ridership is soaring while traffic volumes to the campuses have dropped.

- There are now more than 50,000 U-Pass holders, 60 percent of them at UBC (the others at SFU).
- Since the U-Pass was introduced in the fall of 2003, UBC has measured a 139 percent increase in transit use, with a 53 percent increase in 2003 alone.
- Vehicle trips to campus have decreased by 16 percent.

As a result of this popularity, TransLink has had to increase service. A bus now arrives at UBC every 40 seconds. Currently, the UBC bus terminal ranks as the third busiest "station" in the TransLink system (if ranked as a rapid transit station), and is projected to become the number two station by 2015.



TransLink is now working to construct a new transit terminal at UBC, similar in design to an airport terminal, with reader boards and gates. The terminal will have the majority of the routes below-grade, with the electric trolley bus routes at the surface. The currently at-grade transit exchange would have had to be increased to such a size that it would be uneconomical in terms of the land that it would require. In addition, UBC has development plans for the site of the above-grade facility.

The underground transit centre being constructed is filled with ITS infrastructure. With the new terminal, all buses will have GPS and will feature "all-door" boarding. Dynamically controlled signage will count down the departure times from the main "terminal" area at the surface, and additional signage below-grade will direct passengers to the departure gates.

By 2021, a bus is expected to arrive via a tunnel every 20 seconds to an "arrival area" with gates. After passengers unload, the buses will be sent to a holding area where drivers will be able to rest. An advisory system using either voice annunciation or readers boards in key areas will advise operators when they should return to their bus. The operator will then be directed to a "departure" gate to load passengers. It is estimated that there is only a 50-second lead-time between the bus departing the holding or "layover" area and arriving at the departure gate. A traffic signal is required to control an "intersection" inside the terminal that will be linked to the above-ground traffic light. This will allow buses to platoon out of the terminal and through the first at-grade intersection without stopping.

The project is challenging and will test the limits of technology but, when completed in 2008, it will be a state-of-the-art facility. There are transit facilities with some of the features being utilized at UBC, such as Arnheim, Netherlands, The Bus Exchange in Christchurch, NZ, and at Sydney Australia's Bondi Junction. The major difference at UBC is combining all features together with a split terminal, and pushing through three to four times the volume of passengers using only three arrival gates and four departure gates below grade and up to three gates at the surface.

National Sustainable Urban Transportation Programs and Initiatives Day

On December 2, 2005, William Johnson represented ITS Canada at the National Sustainable Urban Transportation Programs and Initiatives Day, held in Ottawa and hosted by Natural Resources Canada for the Interdepartmental Working Group on Sustainable Urban Transportation. He made a presentation as part of a panel that included Michael Roschlau of the Canadian Urban Transit Association, Al Cormier of the Centre for Sustainable Transportation and Allen Stewart of the Transportation Association of Canada.

One theme of the Initiatives Day was partnerships and lessons learned. ITS Canada has much experience at building national partnerships for the '511' initiative and the recently launched ITS Framework for Traffic Management. These examples highlight our strong relationships with CUTA and TAC. In his summary at the end of the day, Peter Reilly-Roe of Natural Resources Canada noted the willingness expressed by participants to work together, the importance of understanding and changing human behaviour, and the need to think about things in new ways. While conceding that sustainable transportation is a difficult concept to articulate, he urged those present to consider "To articulate the vision is to become the vision" as the best road forward.

This was a worthwhile engagement for ITS Canada as it demonstrated to federal officials that ITS Canada is a willing partner with a proven track record of successful leadership in national partnerships. The informal discussions in the networking sessions over coffee and lunch were invaluable opportunities to establish good relations with the event convenors and attendees.

Members in the News

Globis Data Inc. has announced that it has successfully demonstrated the delivery of streaming video from traffic cameras to Bell EV-DO handsets. By obtaining real-time, streaming video from traffic cameras, users will be able to check key parts of their route before starting a trip and select the optimum route, resulting in faster trips, increased productivity, and less frustration idling in traffic.

The recent demonstration was part of the launch of Bell's new leading-edge mobile data network, EV-DO (Evolution Data Optimized), the fastest mobile data network ever commercialized. The demonstration used traffic video from cameras owned and operated by Transports Québec.

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Traficon has announced a new video detection module, called the VIP-Total, that combines traffic monitoring, automatic incident detection and traffic data collection. It has been developed for tunnel, highway and bridge applications on fixed and PTZ cameras. Its current intelligence, with the implementation of the latest and more advanced technologies such as MPEG4 image compression and Video over IP, makes this product unique in the video detection market. This VIP technology provides real-time data and image information for optimal traffic control and fast, accurate incident detection.

News bITS

UMTRI WINS $25 MILLION CONTRACT TO HELP DRIVERS AVOID CRASHES

The U.S. Department of Transportation has awarded a $2.5 million contract to the University of Michigan Transportation Research Institute (UMTRI) to develop technologies to assist drivers in avoiding crashes. Partners include Visteon Corp., Eaton Corp., AssistWare Technology Inc., Honda R&D Americas Inc., Battelle and the Michigan Department of Transportation. A new, integrated crash warning system in a fleet of 16 passenger cars and 10 heavy-duty trucks will be developed and tested.

The goal is to develop integrated, advanced technologies that will warn drivers when they are about to leave the roadway, are in danger of colliding with another vehicle when changing lanes, or are at risk of colliding with the vehicle in front of them. It will use information gathered by inertial, video and radar sensors, plus a global positioning system module to prevent or lessen the impact of some crashes.

For further details, visit:
www.umtri.umich.edu/

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U.S. DOT RELEASES TRAFFIC CONGESTION AND RELIABILITY REPORT

The U.S. Department of Transportation's Federal Highways Administration has released a report entitled, "*Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation (2005)*". The report contains an overview of traffic congestion in the United States and a summary of recent trends in congestion, as well as suggested operational solutions to assist in easing congestion and to improve reliability of travel times.

For details, visit:
www.ops.fhwa.dot.gov/congestion_report/index.htm

Upcoming Events

- **Gulf Traffic**
  December 12 to 14, 2005 – Dubai, UAE
  www.gulftraffic.com
- **2nd Abu Dhabi International Road Exhibition & Conference (ROADEX 2006)**
  March 12 to 15, 2006 – Abu Dhabi, UAE
  www.roadex-uae.com
- **4th Annual GTA Transportation Summit**
  March 21 and 22, 2006 – Toronto, Ontario
  www.strategyinstitute.com
- **Intertraffic Amsterdam**
  April 4 to 7, 2006 – Amsterdam, The Netherlands
  www.intertraffic.com
- **AQTR's 41st Annual Congress**
  April 9 to 11, 2006 – Quebec City, Quebec
  www.aqtr.qc.ca
- **ITS America's 2006 Annual Meeting and Expo**
  May 7 to 9, 2006 – Philadelphia, PA
  www.itsa.org/annualmeeting.html
- **Traffic and Road Safety Third International Congress and Exhibition**
  May 17 to 19, 2006 – Ankara Turkey
  www.trodsa.org
- **CUTA 2006 Annual Conference**
  May 27 to 31, 2006 – Saskatoon, Saskatchewan
  www.cutaactu.on.ca
- **ITS Canada's Annual Conference**
  June 4 to 6, 2006 – Whistler, BC
  www.itscanada.ca/whistler2006
- **11th IFAC Symposium on Control in Transportations Systems**
  August 29 to 31, 2006 – Delft, The Netherlands
  www.rws-avv.nl/ifac-cts2006
- **World Roads Conference**
  September 27 to 29, 2006 – Singapore
  www.worldroads2006.com
- **CUTA 2006 Fall Conference and Trans-Expo**
  November 4 to 8, 2006 – Toronto, Ontario
  Trans-Expo – November 7
  www.cutaactu.on.ca