



ITS Canada News

News from ITS Canada



ITS CANADA FORMS PROMOTIONS COMMITTEE

The recent formation of a Promotions Committee for ITS Canada is expected to contribute to increasing membership in the coming months. Over the past few weeks the Committee's Chair, Jeff Smart (Tacel Ltd.), has been attending conferences and events across Canada. During his travels he is actively promoting the Society, sharing information about the benefits of membership and the services provided, and encouraging those he meets to participate in ITS Canada's Annual Conference being held in Montreal. Assisting Jeff as Vice Chair of the Committee is Chris Philp (iTrans Consulting Inc.)

Studies show that a message must reach a new target several times in order to influence their decisions. It is the Promotions Committee's goal to develop an ongoing communication strategy that outlines opportunities for repeated contacts, as well as outreach to new market sectors not previously targeted.

As a member, ITS Canada invites you to share any opportunities you may know of that ITS Canada can use to increase the Society's visibility. With your assistance and your support of strong industry membership, the Society will continue to be credible and effective as your industry association.

Promoting Members

www.itscanada.ca/protected/search.php

One of the many benefits available to members is ITS Canada's online, searchable **Members Directory**. For Corporate and Sustaining Corporate members, your 100-word profile represents your opportunity to promote your organization to other members. It can be updated at any time by emailing itscanada@itscanada.ca.

For those considering purchasing ITS products or services, the Members Directory is **searchable** by keyword or by location. The Society often receives calls requesting information about members' ITS capabilities and accomplishments. This tool has been well received by those looking for ITS Canada members that provide specific products or services.

Review your profile today to ensure it continues to reflect your participation and contributions to the industry.

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Submissions or comments can
be e-mailed to

itscanada@itscanada.ca.



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

Regional Updates

INFORMATION FROM ACROSS CANADA ON INTELLIGENT TRANSPORT SYSTEMS DEPLOYMENTS

YUKON

By Wally Hiding, Government of Yukon

An update on Yukon's ITS projects.

- A strategic plan for ITS development in Yukon has been completed. The plan considered a wide range of input from stakeholders, emerging issues and technologies, and the existing state of ITS deployment in Yukon. The result is a realistic and achievable direction for the Yukon ITS program over the short, medium and longer terms.
- Following a successful test of satellite-based reporting from four permanent traffic counter locations in prior years, an additional eight sites were upgraded in 2007. The twelve sites now report traffic counts and, in some cases, subsurface temperatures through a satellite uplink/downlink arrangement to a website which can be monitored from any authorized desktop PC.
- Portable weigh-in-motion equipment previously acquired was utilized on a test basis in 2007. Weigh station and engineering staff were trained in the installation and use of the equipment and a field trial was carried out.
- A road condition reporting system that can be easily accessed by dialling 511 or navigating to a website (www.511yukon.ca) was completed in 2007. The new system is one of the first in Canada, and will deliver more timely and more accurate road condition information to Yukon road users.
- An automated vehicle location system pilot project is in progress. Two snowplough trucks have been instrumented with cell phone and satellite communications hardware as well as a number of equipment status/function sensors. Monitoring software allows live tracking of the units and archiving of the position/function data produced. An evaluation of the data will be carried out at the end of the winter maintenance season.



ALBERTA

Submitted by Alberta Infrastructure and Transportation

Alberta Infrastructure and Transportation is working on an update to its ITS Strategic Plan that aims to identify the many opportunities to further ITS in the province. Recognizing the need to integrate existing and future ITS initiatives in its repertoire, the department's ITS Strategic Plan update embarks on strategies for the administration, research, marketing and integration of ITS services to enhance user experience and service performance. In addition to its current services and deployments, the department has been involved in several recent undertakings:

FHWA Clarus Initiative – Alberta joined the Alaska-Canada (ALCAN) group (Alaska, British Columbia, Yukon, Alberta and Environment Canada) to submit a Concept of Operations proposal to the U.S. Federal Highway Administration in implementing cross-jurisdiction sharing of RWIS and traveller information data. The ALCAN proposal is one of three proposals submitted to FHWA, and is the only one with Canadian participation. The FHWA is now deliberating on developing protocols/models for implementation. (See also *Environment Canada update, Page 7.*)

Regional Traffic Management Centre (TMC) concept – Alberta Infrastructure and Transportation is currently engaged in a demonstration project with the City of Calgary and its maintenance contractor to use ITS technologies to monitor and manage traffic congestion and incidents on the province-owned Deerfoot Trail in Calgary. Traffic monitoring cameras, automated incident detection software, portable dynamic message signs, traveller information (radio advisory and web), and real-time detour signal timing adjustments are all channelled through Calgary's TMC for optimal coordination. Project details and results will be presented at ITS Canada's upcoming Annual Conference in Montreal.

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Regional Updates

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ALBERTA ... continued

Advanced Traveller Information System (ATIS) and 511 – Alberta Infrastructure and Transportation is evaluating the current telephone traveller information system within Alberta, as well as the future partnership opportunities presented by the Alberta Motor Association (AMA) in its ATIS business case. In launching the 511 initiative in Alberta, the department will consider operating and funding alternatives, as well as ensure that Alberta's deployment allows for integration and interface with other 511 deployments in Canada and the U.S.

Automated Vehicle Identification (AVI) System – The AVI project enables electronic bypass of low-risk commercial vehicles using vehicle-mounted transponders and AVI readers. This ITS solution will enhance the productivity of commercial vehicle operations, and offer time and fuel savings to carriers from bypassing inspection stations. Alberta has installed, tested and launched twelve vehicle inspection stations for commercial vehicle pre-clearance, six of which were cost-shared with Transport Canada. The department will continue to expand and improve its AVI sites to better service carriers under this program.



Remote Control Weigh Station (RCWS) – Financed by Alberta Infrastructure and Transportation, Saskatchewan Highways and Transportation and Transport Canada, the Remote Control Weigh Station (RCWS) is a pilot project employing existing and proven technologies such as video cameras, variable message signs and high-speed Internet to remotely operate unattended weigh stations. An officer located in a distant office will be able to operate and monitor the pilot site. The RCWS pilot site is located at Macklin, an existing unattended weigh scale situated east of the Alberta-Saskatchewan border.

This pilot project is to demonstrate an efficient and less costly alternative for operating weigh stations, thereby improving the productivity and efficiency of enforcement personnel, and enhancing commercial vehicle operations and traffic safety. All major components of the RCWS have been installed and post-project evaluations are being completed.

Road Weather Information System (RWIS) – The RWIS includes weather reporting stations with sensors embedded in and below the pavement, and on nearby towers to monitor air and pavement temperatures. The real-time data obtained by the RWIS stations can assist the department's maintenance contractors in making road treatment decisions during severe weather conditions. The RWIS stations provide safety benefits to Albertans through proactive and efficient winter maintenance operations along the heavily travelled corridors. The camera images collected from RWIS stations are provided to the AMA Road Report website for public viewing. The department currently has 75 RWIS stations constructed and in-operation. In the next few years, the department will examine possible RWIS expansion needs to the new Edmonton and Calgary ring roads, as well as other "hot spot" bridge locations to address gaps in the RWIS network.

Automated Vehicle Location System (AVLS) – The AVLS is a computerized system that utilizes global position systems to graphically track the location and status of snowplough trucks for effective fleet management. The system will enable the department to better manage the performance of the road maintenance contractors, monitor work activities and audit payments. In the near future, maintenance contractors may make use of the real-time RWIS data, together with the AVLS technology, to plan maintenance activities proactively and allocate the appropriate amount of resources at the proper time and location. The department has outfitted over 600 snowploughs with AVLS. The current goal is to have all highway maintenance contractors use the automated billing system for invoicing the department for snow and ice removal work.

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ALBERTA – CALGARY

By Bart Rakoz, City of Calgary

The following initiatives are underway in Calgary.

Parking

Calgary Parking Authority is rolling out their advanced on-street pay parking system throughout downtown Calgary. See the ParkPlus website: www.parkplus.ca. Payment is zone-based instead of meter based, ticketless, and customers can pay by credit card, cash or through their cell phone.

Calgary Transit

Calgary Transit is equipping 400 buses with DriveCam (www.drivecam.com) technology. The cameras are intended to enhance operator and customer safety. Extra video cameras are also being added to Park and Ride parking lots to increase customer safety.

Traffic Management Centre

The Alberta government, City of Calgary, and maintenance contractor Carmacks Enterprises are teaming up to improve traffic flow and incident response on Deerfoot Trail. A six-month Deerfoot Trail Traffic and Incident Management Demonstration Project began in mid-November that uses technologies such as video monitoring cameras, portable variable message signs and improved traffic signal coordination. The demonstration project targets one of the busiest portions of Deerfoot Trail between Memorial Drive and Calf Robe Bridge, which has traffic volumes up to 155,000 vehicles per day.



Calgary Advanced Traveller Information System

An Instant Traffic Updates Pilot Project has been launched, a five-month pilot that provides instant, customized traffic information directly to subscribers' cell phones using text messaging as well as via email to a PDA or computer. Each subscriber enters their personal travel times and route information into the Instant Traffic Updates website page by visiting the City's Advanced Traveller Information System (ATIS) site (www.calgarytraffic.com) and clicking on the link for "Email/Txtmsg Updates". The Instant Traffic Updates system will then send the subscriber relevant information about detours, road closures and incidents that occur on the subscriber's travel route. As soon as traffic updates are entered into the City's ATIS, affected subscribers will instantly receive the traffic information. Adding a customized delivery service for the traffic information that the City already provides complements the ATIS website (<http://65.104.36.247/>) and the website portal <http://calgary.ca/trafficinfo>.

ONTARIO - TORONTO

By Steven Kemp, City of Toronto

A Queue-end Warning System uses vehicle detection technology to automatically locate and track traffic queues. The system can then warn approaching motorists of the location of the end-of-queue using changeable message signs located along the roadway. The objective of the system is to reduce the frequency of rear-end collisions by alerting approaching motorists of the presence of stopped traffic ahead. The City of Toronto has implemented its first queue-end warning system on a section of Allen Road between Highway 401 and Eglinton Avenue.

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*ITS Canada Welcomes
New Members*

CORPORATE
ACF Communications
IntelliOne Inc.

Regional Updates

INFORMATION FROM ACROSS CANADA ON INTELLIGENT TRANSPORT SYSTEMS DEPLOYMENTS

ONTARIO ... continued



The system consists of 17 vehicle detection stations, 8 changeable message signs and 8 closed circuit television camera sites. Approximately 5 kilometres of fibre optic cable and two wireless radio frequency (RF) links were installed for communications to the central control centre. The total project cost was approximately \$4 million dollars.

ONTARIO - DURHAM

By Bob Szwarcz, *Regional Municipality of Durham*

In order to provide a means of disseminating traffic delays or ongoing road works to drivers travelling in and around Durham in an accurate and timely manner, the Regional Municipality of Durham will be launching a new Traffic Watch Website in mid-2008. The primary goal of the public website will be to provide real-time traveller information, alerting drivers to congestion, road works, incidents, etc., that have occurred on regional roads, in order to reduce further delays and allow motorists to make informed route decisions to arrive at their destination more efficiently.

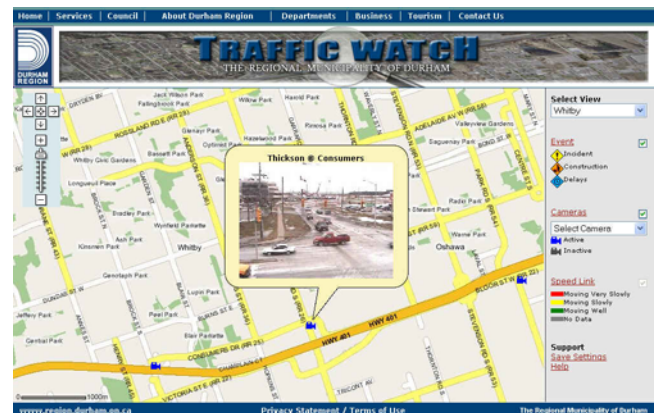
The traveller information website was identified as a “short-term” initiative in the Region’s ITS Strategic Plan. It encompasses integration of three existing applications: Event Manager, Congestion Mapping and CCTV traffic cameras.

The website information will be accessible by viewing JPEG still images from approximately 20 CCTV cameras currently updated every 60 seconds. Further CCTV deployment will add another 20-30 cameras throughout the Region with improved image processing.

Congestion mapping or road operating conditions can also be observed, designated by colour (green representing ‘moving well’, yellow ‘slow’ and red ‘very slow’). Operating speed and road density conditions are monitored in real-time by the Region’s Traffic Management Centre via approximately 200 permanent vehicle detector stations and translated to the website on a minute-by-minute basis.

Active and future planned road events, such as incidents, closures, construction, weather and special events such as parades and filming, are entered by staff through the Region’s Event Manager System and automatically transferred to the website. Map icons will provide both ‘hover-text’ information and a detailed ‘pop-up’ window on status, duration and impact to the website user.

Future plans involving the website include: e-commerce for traffic data requests, variable message signs, road weather information systems and potential transit applications. The Traffic Watch Website will be linked to the Regional Municipality of Durham’s website at www.region.durham.on.ca.



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NEW BRUNSWICK

By Katie Clowater,
New Brunswick Department of Transportation (NBDOT)

The New Brunswick Department of Transportation is working on two new projects under the Rural Intelligent Transportation Systems Research Centre Agreement, a contribution agreement for Research and Development of Intelligent Transportation Systems between Transport Canada and the New Brunswick Department of Transportation. NBDOT has already completed eight projects under this agreement.

Project #9: Research Platform for Testing Spring Weight Restriction Technology, which is being led by the Rural ITS Research Centre at the University of New Brunswick, involves the installation and monitoring of sensors at three test locations near existing RWIS installations, and establishing a road strength research platform to test the validity of the algorithms from the previous R&D project, *ITS for Variable Load Restrictions*.

New Brunswick, like many other jurisdictions, implements weight restrictions for commercial vehicles travelling on roads susceptible to weakening during the spring thaw. Current methods of applying these restrictions primarily rely on historical data, meaning decisions on restrictions are being made with road strength information that may not correspond to actual real-time road strength. There are two main impacts associated with the current process. First, commercial vehicle operators using these roads must reduce their payload for several weeks. It is possible that with real-time strength data weight restrictions could be modified as the road gains strength, reducing the economic impact on carriers. Second, variations in temperature and weather may result in the road thaw taking place outside of the pre-determined time window, resulting in accelerated damage to the roads as carriers operate at normal weights. Improving the quality and availability of real-time road strength information will provide an important decision-making tool that will assist in balancing economic interests and infrastructure preservation.



Three roads in different areas of the province that are weight restricted in the spring have been instrumented with technology to measure strain, temperature and other road strength-determining attributes. The result of this project will be a research platform for assessing road strength during spring weight restrictions.

Project #10: Testing Use of In-Vehicle Wireless Devices to Improve the Collection and Dissemination of Road Condition Information will evaluate the feasibility of using an in-vehicle device to record road condition information and transfer it to the central data system for immediate public dissemination.

New Brunswick currently provides road users with information about road conditions across the province. This information is accessible by telephone, television and the Internet. However, the current method of collecting and disseminating the information involves several processes resulting in significant delays between the recording of and the actual dissemination of road condition information to the public.

This project will test and compare three different in-vehicle devices: a laptop computer, a handheld device (e.g., Blackberry) and a tablet PC. The results of the trial will be used to determine whether the use of in-vehicle technology will expedite the collection and dissemination of winter road condition information. The findings may also identify other in-vehicle data collection activities that may help the department improve efficiency.

These two projects will be completed by the end of September 2008. The New Brunswick Department of Transportation is looking forward to continuing to be proactive in the research, development, and deployment of Intelligent Transportation Systems (ITS) technology in Canada.

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NEWFOUNDLAND AND LABRADOR

*By Doug Shea,
Government of Newfoundland & Labrador*

Highlights for Newfoundland and Labrador include:

- Continuation of the development of the Geographic Information System (Data Warehousing/Asset Management) project. The software development is complete and data in support of the asset management of highway infrastructure is ongoing. Preliminary work is ongoing to populate the GIS with pavement, traffic and accident information at a future date, following completion of the infrastructure information.
- The TWIS system has been up and running for a couple of years and we have plans to expand our system by additional sites in 2008 and 2009. Salt management is ongoing.

ENVIRONMENT CANADA

By David Lahn, Meteorological Service of Canada

As noted on Page 2, a team from Environment Canada has joined forces with colleagues from Alaska, Yukon, British Columbia and Alberta transportation departments to coordinate provision of road weather information for the ALCAN Highway corridor. The ALCAN Highway, its affiliated access routes and major ferry routes, span both expansive rural settings as well as maritime regions in both Canada and the United States. Travel and commerce throughout this network requires timely knowledge of road, marine and rail weather conditions. The groups are working under the umbrella of the Clarus Initiative, a U.S. Federal Highways Administration project to incorporate road weather information to serve the greater community and enhance 21st century transportation operations.

The ultimate goal for the team will be a website, the ALCAN Highway Road Weather Portal, through which transportation managers and users can access all of the information necessary to provide improved safety, reliability and security for travellers. This information is essential for winter road maintenance, traffic and safety management, vehicle dispatch and flood control, among other issues.

The Canadian efforts were managed by the EC Road Weather Information Network (RWIN) between August 2006 and January 2008. A major outcome of this project is the full integration of the Canadian RWIN road weather information from the member agencies into the Clarus system. This project also provides a blueprint for the inclusion of other Canadian agencies in the future. The portal will simplify the access of information from widely disparate sources and consolidate information into resource sets that users now have to track down from multiple websites. More details on the Clarus Initiative can be found at <http://www.clarusinitiative.org/regional.htm>.

By Dan Huang, Environment Canada

In February 2008, three Environment Canada Provincial Road Weather Information System (RWIS) data sharing agreements were signed on the federal side for the provinces of Prince Edward Island, British Columbia and the Yukon Territory. Formal data sharing agreements now exist for seven provinces and one territory. A data sharing agreement between Environment Canada and Quebec is in the signature phase and is expected to be completed soon. The goal is to have a complete and nationally Integrated Road Weather Information Network (RWIN), thereby paving the way for inclusion of other sources of road weather data.

IBEC

**ITS Benefits, Evaluation and Costs
NEW WEBSITE: www.ibec-its.co.uk**

IBEC has recently unveiled its upgraded and redesigned website. Several months in the making, the new and improved website is a repository of state-of-the-art knowledge about ITS evaluation methodology and results. The website now contains an archive of IBEC newsletters, trade press articles about IBEC, proceedings and presentations from IBEC-sponsored events dating back to 1999, a future events calendar; and the IBEC library with a comprehensive listing of handbooks, training materials and recommended books.



ITS Canada News

News *bITS*

ITS Architecture Workshop

Don't miss the upcoming workshop to be held during ITS Canada's Annual Conference in Montreal on Monday, June 2, to discuss **Development of a Regional ITS Architecture and Border Information Flow Architecture (BIFA)**.

Themes presented and offered for open discussion will include:

- Transportation Planning Along the Border
- Border Information Flow Architecture
- Use of BIFA and Regional Architectures
- Project Implementation and the Role of Systems Engineering in Border ITS Projects
- On-going Maintenance of Border ITS Architectures
- Prioritizing ITS and Border Technology Projects.

Plan to attend this workshop that is open to all.

NEW TOLLING AND PRICING PROGRAM SITE

The U.S. Federal Highway Administration Office of Operations has recently launched a new Tolling and Pricing Program website. In an effort to create a more user friendly experience when searching for information about federal pricing programs, the new site includes valuable information that was once included on three separate sites: the Tolling and Pricing Opportunities, the Value Pricing Pilot Program (VPPP) and the VPPP site on the Knowledge Exchange. This is just the first step in streamlining information on one of the critical FHWA programs. In the future, the site will also feature a subject index that will help the user find the subjects they are looking for quickly instead of searching the entire site. To view the new website, visit:

www.ops.fhwa.dot.gov/tolling_pricing/index.htm.

COURSES

MODELING AND SIMULATION OF TRANSPORTATION NETWORKS

Modeling and simulation methods are essential elements in the design and operation of transportation systems. Congestion problems in cities worldwide have prompted a proliferation of interest in ITS that includes advanced supply and demand management techniques – real-time traffic control measures and traveller information and guidance systems to assist travellers in making departure time, mode and route choice decisions. Transportation researchers have developed models for use in the planning, design and operations of such systems. This course draws heavily on the results of recent research, and studies theories and applications of transportation network demand, supply models and simulation techniques. This program is intended for analysts, engineers, managers and planners, as well as industry, government and academic researchers who seek to understand, analyze and predict performance of transportation systems. Participants with backgrounds in diverse areas such as traffic engineering, systems engineering, transportation planning, operations management, operations research and control systems are welcome. The course runs July 28 to August 1. Visit: <http://web.mit.edu>.

IMPROVING HIGHWAY SAFETY WITH ITS

The Consortium for ITS Training and Education (CITE) and the FHWA Office of Safety have released an interactive, web-based course on "Improving Highway Safety with ITS". This course aims to increase awareness of the benefits to be gained through the deployment of ITS for highway safety applications. Designed to assist professionals in both the highway safety and ITS communities, participants may be planners, operators, designers or maintenance personnel. A complete outline of the course can be found on the CITE web site.

This course begins on May 2 and continues through June 23, 2008. The fee for the course is \$250 and students can register by going to the CITE web site at <http://www.citeconsortium.org>.



Upcoming Events

ITS UK Annual Conference

May 20 to 22, 2008 – Manchester, UK
www.its-uk.org.uk

13th International Conference on Road Transport Information and Control

May 20 to 22, 2008 – Manchester, UK
www.theiet.org/rtic

ITS Polish Congress 2008

May 26 to 28, 2008 – Warsaw, Poland
www.pkits.pl/index_eng.php

Ontario Traffic Conference and AGM

June 2 and 3, 2008 – Oakville, Ontario
www.otc.org

7th ITS European Congress and Exhibition on Intelligent Transport Systems and Services

June 4 to 6, 2008 – Geneva, Switzerland
www.itsineurope.com

IEEE Intelligent Vehicles Symposium

June 4 to 6, 2008 – Eindhoven, the Netherlands
www.iv2008.nl

Canadian Multidisciplinary Road Safety Conf.

June 8 to 11, 2008 – Whistler, BC, Canada
www.cmrsc.ca

ITS New York 15th Annual Meeting

June 12 and 13, 2008 – Saratoga Springs, NY
DottyD@aol.com

Freeway and Tollway Operations Conference

June 15 to 19, 2008 – Fort Lauderdale, USA
www.2008ftoc.com

2008 Canadian Telecom Summit

June 16 to June 18, 2008 – Toronto, ON
www.telecomsummit.com

9th Intelligent Transport Systems Asia-Pacific Forum and Exhibition

July 14 to 16, 2008 – Singapore
www.itsasiapacific2008.com

National Rural ITS Conference

September 3 to 5, 2008 – Anchorage, AK
www.nritsconference.org

TranspoQuip Latin America 2008

September 9 to 11, 2008 – Sao Paulo, Brazil
www.TranspoQuip.com

OTC Parking Workshop

September 14 to 16, 2008 – Stratford, Ontario
www.otc.org

XV Pan-American Conf. of Traffic & Transportation

September 14 to 17, 2008 – Colombia
www.uninorte.edu.co/panam2008

TAC Annual Conference 2008

September 21 to 24, 2008 – Toronto, Ontario
www.tac-atc.ca

Transpo2008: "ITS: Piecing It All Together"

September 22 to 28, 2008 – Orlando, Florida
www.itstranspo.org

8th Spanish Congress and Exhibition on ITS

October 14 to 16, 2008 – Oviedo, Spain
congresos@itsspain.com

Viet Traffic – Road-Rail-Safety-ITS

October 15 to 17, 2008 – Hanoi, Vietnam
www.viettraffic.com

OTC Traffic Engineering Workshop

October 16, 2008 – Alliston, Ontario
www.otc.org

8th International Transport Systems Telematics Conference

November 5 to 8, 2008 – Katowice-Ustroń, Poland
www.tst-conference.org

CUTA Fall Conference and Trans-Expo 2008

November 8 to 12, 2008 – Windsor, Ontario
www.cutaactu.ca

15th World Congress on ITS and ITS America's 2008 Annual Meeting & Exposition

November 16 to 20, 2008 – New York, USA
www.itsa.org/worldcongress.html



ITS CANADA ANNUAL CONFERENCE AND GENERAL MEETING 2008
June 1 to 4, 2008 – Montreal, Canada ~ www.itscanada.ca/montreal2008