



ITS Canada News

ITS Canada Awards Scholarship

ITS Canada Michel Van Aerde Memorial Scholarship for Graduate Study in ITS 2005 Recipient

The Education and Training Committee is pleased to announce the recipient of **ITS Canada's Michel Van Aerde Memorial Scholarship** for 2005. The award of \$5,000 is made through a competitive process to a student registered full-time in a graduate studies program at a Canadian university related to intelligent transportation systems.

Mark Gunter of the University of New Brunswick is the successful winner of the award for the academic year 2005–2006. The Review Committee made its selection based on his strong academic record, clearly stated goals, demonstrated understanding of ITS, and strong letters of recommendation.

Mark will begin studies in September for a Master of Science Degree at the University of New Brunswick under the supervision of Dr. Eric Hildebrand. He plans to pursue research related to rural ITS with a focus on safety at low-volume railway crossings. He is presently involved in real-life ITS deployment projects related to roadway work zone safety and railway grade crossing safety at the University of New Brunswick's National Centre for Rural ITS Research.

ITS Canada extends congratulations to Mark and wishes him every success in his graduate studies.

About The Scholarship

ITS Canada's Michel Van Aerde Memorial Scholarship was set up by ITS Canada to commemorate the contribution that **Dr. Michel Van Aerde** made to the ITS industry. Professor Van Aerde was a leader in the academic field, with positions at the University of Waterloo and Queens University, where he played a leading role in the development of ITS-related curricula. He was also very active in research, specifically in areas of operational and benefits assessments using modelling techniques. This led to the development of the INTEGRATION model which was used extensively in some of the early evaluations of ITS projects, both in North America and internationally. Professor Van Aerde subsequently accepted a position at the Virginia Polytechnic Institute and State University, playing a senior role in their ITS program. In addition, Dr. Van Aerde was active in the private sector where he successfully pursued the commercialization of the INTEGRATION model. Dr. Van Aerde was one of the inaugural directors of ITS Canada.

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

Moving Forward with Intelligence: Ontario's ITS Strategy

*By Stephen Erwin, Head of
Intelligent Transportation Systems Program,
Ministry of Transportation of Ontario*

Ontario has had great success with our ITS applications – they've produced great benefits and had an impact on our transportation services – saving lives, increasing capacity and making travel more flexible. But it's not enough!

We have a need to do more! Our population and economy are growing. The demand to move people and goods effectively is growing. And in many urban centres, and on key corridors, congestion is also continuing to grow.

In Ontario we believe that ITS can play an important role and recently released *Moving Forward with Intelligence: Ontario's ITS Strategy*, to help shape that role.

Ontario's strategy has three key themes:

- Reducing Urban Congestion and Commuting Times;
- Making Border Crossings More Effective; and
- Enhancing Vehicle and Passenger Safety.

A fourth theme supports Delivering ITS Services Effectively.

Integration plays an overriding role in our strategy – integration of functions and integration among jurisdictions. In effect, moving towards managing the transportation network and services as an integrated service.

Ironically, one of the keys to achieving integration is to separate the components of many systems and reuse many for other purposes. This will require an Intelligent Infrastructure supported by a strong telecommunications backbone – wire and wireless – enabling us to link together in new ways the ITS components that monitor conditions, that analyse situations, and that disseminate results or control transportation services directly.

The Intelligent Infrastructure will support multiple methods of monitoring conditions operated by different organizations. This could include the use of traditional electromagnetic loops, closed circuit cameras, cell phones and transponders, video detection systems – and supports both public and private sector services. It positions road authorities to be able to monitor conditions on all roads, not just those in major urban centres, without the need to undertake all of the major capital investment, by purchasing data from the private sector.

By undertaking the necessary architectural planning up front, the Intelligent Infrastructure allows the implementation of virtual data warehouses, integrating data from multiple functions and sources to create new applications. For example, the use of traffic monitoring and transponder systems can support increased border security by monitoring the movement of hazardous loads. The implementation of additional sensors on maintenance fleet vehicles can turn them into rolling weather and road condition systems supporting improved maintenance decision systems, and traveller information systems.

To obtain a copy of the document, please contact the ministry at its@mto.gov.on.ca, or visit the ministry web site at:

<http://www.mto.gov.on.ca/english/engineering/its/>.



Landmark Federal Transit Funding Approved

By Michael Roschlau, President and CEO, CUTA

With the passage of Bill C-48 in the House of Commons on Thursday 23 June, the federal government moved a big step closer to establishing sustainable investment in Canada's public transit systems

This bill is historic in that it approves the first-ever universal federal investment in public transit. One cent per litre (10%) of the federal gas tax will be transferred to municipalities across Canada over the next two years, specifically for investment in public transit. This amounts to \$800-million and is over and above the \$5-billion committed as part of the original budget (Bill C-43), a significant part of which is also expected to go to transit infrastructure.

The specifics will be the subject of individual agreements with each province and territory, two of which have already been signed -- in Ontario and Quebec. Agreements on the original New Deal have also been concluded with British Columbia, Alberta and the Yukon, but will need to be revisited to add the new provision as a result of the amendment that was negotiated between Prime Minister Paul Martin and NDP Leader Jack Layton.

Transportation investments eligible under the New Deal funding are limited to environmentally sustainable capital projects, and specifically include ITS technologies designed to improve transit priority signalling, passenger and traffic information and transit operations.

As far as allocation is concerned, the federal gas tax will be distributed among the thirteen provinces and territories largely on a per-capita basis, with internal allocation within each jurisdiction subject to negotiation in each case. For the \$800-million for transit under Bill C-48, transit ridership is being used as the allocation mechanism within each province or territory.

The official announcement of the transit-specific funding took place on 1 June at the Canadian Urban Transit Association (CUTA) Annual Conference. In his comments, and to numerous standing ovations, Minister Godfrey stated: "We know that strong, efficient and vibrant public transit systems are absolutely crucial to our economic competitiveness and our quality of life across this country." Building on Minister Godfrey's comments, Transport Minister Jean Lapierre added: "I am pleased that this funding will be directed towards the transit needs of our cities, where it will provide a host of benefits to Canadians. Environment Minister Stéphane Dion concluded that "Canadians want sustainable transportation choices and the public transit initiative will give them what they need."



*(Left to right) Leader of the federal NDP **Jack Layton**, Minister of State (Infrastructure and Communities) **John Godfrey**, CUTA Chair **Robert Olivier** and CUTA President & CEO **Michael Roschlau** at the 2005 CUTA Annual Conference.*



ITS Canada News

Regional Updates

News on the development and deployment of ITS in Canada

ALBERTA - CALGARY

By Ryan Vanderputten, City of Calgary

The City of Calgary has been moving forward on many ITS projects over the past few months. The following is a brief summary of some of these projects.

Traffic Management and Incident Detection

Mayor Dave Bronconnier officially launched the city's Traffic Management Centre (TMC) on June 28, 2005. This event received significant media coverage, and provided an opportunity to inform the public of the systems that monitor traffic within Calgary. The City's Automated Incident Detection (AID) system, MIST 4.0 traffic management system, and traveller information website were all highlighted as part of this event.

Traveller Information

The City of Calgary's Advanced Traveller Information System (ATIS) initiative is making good progress. The CARS pilot project with provincial and municipal partners has evolved to include incident reporting in the morning and afternoon peak hours, as well as camera images from the newly launched TMC. The road network coverage has improved, and recent media events have driven up the use of the website significantly. Also on the horizon is the implementation of Calgary's first Highway Advisory Radio (HAR), which will be deployed for a three year, multimillion dollar project on one of the City's major corridors (Glenmore Trail). The City of Calgary has also awarded the contract for provision of a permanent Traveller Information System.

Transit

Calgary Transit has hired a consultant to undertake a scoping project for the replacement of their Passenger Information System. The focus will be on the Light Rail Transit system initially, with possible future expansion to the Bus Rapid Transit network. Calgary Transit also recently purchased additional Automated Passenger Counting equipment. This will expand their coverage by an additional 20 units (15 regular buses plus 5 community shuttles).

ONTARIO - YORK REGION

This fall, rapid transit is set to begin in York Region, located just north of Toronto. On September 6, a fleet of 85 rapid transit buses will initiate operation on four high-traffic routes in the Region. The system includes a number of improvements to speed up transit, including fewer stops and transit signal priority at intersections, among other ITS initiatives.

Frequency will be the key, with rapid transit vehicles arriving every five to fifteen minutes during peak periods. New stations, currently being built, are modern, bright, and safe. Fare vending machines will allow passengers to purchase tickets before boarding. Electronic signs will provide passengers with information on when the next vehicle will arrive. The new system, being called *Viva*, will be part of one system that includes York Region Transit (YRT). Passengers will be able to transfer easily between *Viva* and YRT at no additional cost, with only one fare to use both systems.

The Government of Canada, Government of Ontario, and York Regional Council each contributed one-third of the \$150 million cost of phase one. *Viva* will be developed in three phases over the next 20 years, and will link the urban centres of Markham, Richmond Hill, Vaughan, and Newmarket along four major corridors. *Viva* will also link York Region to three different Toronto subway lines, as well as three area GO Transit stations, and will make connections to the neighbouring Regions of Peel and Durham.

Expectations are that an immediate 10 to 17 percent improvement in travel times will be realized, with a 25 to 40 percent improvement in peak periods in the first phase. When fully implemented in 2006, phase one of *Viva* is expected to produce a 30 per cent increase in transit ridership in York Region - moving 7,000 cars a day off the road network. The system will carry 36,000 riders a day by the end of 2006, and as many as 140,000 passengers by 2021. Only about 8 percent of residents currently use transit in the region, but the target to improve this to 30 percent will drive revenues up to 50 percent of costs, the same level now being met by the conventional transit system.



ITS Canada News

News bITS

511 CALLS INCREASE IN CALIFORNIA

In early June, as a transit strike loomed in the San Francisco Bay Area in California, residents were seeing the benefits of the 511 system, as record numbers of commuters contacted 511 for rideshare information. Phone calls to the 511 rideshare hotline peaked at about 150 on July 5.

"The greatest wasted transit resource in the Bay Area remains the empty seats in most commuters' automobiles," said Metropolitan Transportation Commission Executive Director Steve Heminger. "Ridesharing, whether formal or casual, is a critical tool in the battle against traffic congestion. And if you've got a long commute, sharing the ride with others may be the most relaxing, flexible and economical way to go."

A record number of 588 applicants -- six times the normal rate -- signed up for the ridesharing program via the phone or web on July 5. Ridesharing saves commuters time and money through the Bay Area's network of carpool lanes and free park-and-ride lots.

THE FREIGHT STORY

Now available on the U.S. Department of Transportation's Federal Highways Administration website is *The Freight Story: A National Perspective on Enhancing Freight Transportation*. Visit the site at:

www.ops.fhwa.dot.gov/freight/freight_analysis/freight_story/index.htm

TRAFFIC SAFETY

In October 2004, the Office of International Programs of the Federal Highways Administration published a document on *Traffic Safety Information Systems in Europe and Australia*. The report is now available online at:

www.international.fhwa.dot.gov/tsis_04010/tsis_euro_au.pdf

ITS PILOT ON NEW DELHI RING ROAD

The Public Works Department of the Delhi National Capitol Territory Government plans to run a pilot project to develop an ITS instrumentation plan to cover the entire Delhi Ring Road. This new system will include GPS and GIS systems to receive real-time traffic information and navigation guidance. Visit their website at: www.pwd.delhigovt.nic.in



Border Security and Prosperity Partnership Workshop

On June 27, 2005, ITS Canada's Chairman Joseph Lam participated in a Security and Prosperity Partnership workshop in Ottawa, Canada. Included in the meeting were high-level transportation and security representatives from Canada, Mexico and the United States. The morning featured a press conference that highlighted common objectives and work plans, followed by networking sessions between public and private-sector representatives from all three countries.

The goal is to work together on border partnerships to keep the border open for trade and prosperity, while maintaining vigilance on security issues. Focus items include a common approach to border management and security, harmonizing regulations and collectively tackling problems like counterfeiting and pirating in order to enhance the continent's global influence.

After the meeting, guests were escorted from Parliament Hill to the National Arts Centre for a luncheon hosted by Deputy Prime Minister Anne McLellan and Minister David Emerson. Prime Minister Paul Martin was also in attendance.



ITS Canada News

ITS Funding from Transport Canada

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.

Advanced Fleet Management System

Funding awarded: \$79,678

Total cost of proposal: \$159,355

In Canada, specialized transit plays a vital role in the mobility needs of over 220,000 registered users with disabilities. This niche of the transit industry has experienced tremendous growth over the last decade. Specialized transit services offer vital and indisputable benefits, but they are costly to run. Fares are similar to conventional transit, but the per-passenger operating costs are almost nine times higher.

So far, the specialized transit industry has managed to keep its maintenance expenses controlled (2 percent increase in 2002), but overall operating expenses have increased 9 percent during the same period. A fleet maintenance solution that can be implemented in a scaleable fashion would help reduce maintenance expenses with minimal investment.

Earlier this year, Transport Canada's ITS Deployment and Integration Plan awarded the Canadian Urban Transit Association (CUTA), Calgary Handi-Bus Association (CHBA), and Ceteris a contribution of over \$79,000 to conduct the pilot deployment of an advanced fleet management system. Deployment of such technology would be a first in Canada. This technology is already used in other commercial vehicle applications but not in urban or specialized transit environments.

Using an advanced blend of software and hand-held wireless terminals, this Intelligent Transportation System will help CHBA reduce spare parts acquisition and inventory, improve warranty tracking, efficiencies and productivity.

Canada

This deployment will help evaluate requirements to adapt this technology to the needs of a paratransit fleet, measurable benefits that the operating system can count on, and requirements for further ITS systems research and development to expand on this solution.

CHBA has begun monitoring the efficiency of the existing system along pre-defined indicators. Later this summer, training for and installation of the new automated system will take place. By monitoring maintenance operations with the new system installed, recommendations will then be made on the usefulness of an advanced intelligent fleet management system.

CUTA will be managing the project, writing the final report, and communicating results throughout the industry.

ITS Research in Freight Security

On July 6, 2005, an agreement was announced between the Government of Canada and the Province of British Columbia for each to provide up to \$500,000 to establish the *Bureau of ITS and Freight Security* at the University of British Columbia. The Bureau's research and development program will conduct research and disseminate findings in the areas of intelligent transportation systems and freight security. For further details, please visit:

www.tc.gc.ca/mediaroom/releases/nat/2005/05-h160e.htm



ITS Canada News

Members in the News

International Road Dynamics Inc. (IRD) announced in early July that PAT Traffic Sistemas de Transporte Inteligente Ltda (PAT Traffic Brazil) of São Paulo, Brazil, has received a contract from the Brazilian Federal Department of Transport Infrastructure (DNIT) for the refurbishment of 13 Weigh-In-Motion stations (WIM) on federal highways for R\$3.83 million (CAD \$2.0 million). IRD acquired a 40% interest in PAT Traffic Brazil following its purchase of the worldwide PAT Traffic business in the fall of 2003. The weigh stations are located in southeast Brazil and were originally supplied by PAT's predecessor. The contract will be completed within six months.

Calgary Transit has undertaken a review of their Passenger Information Systems for the CTrain and BRT services. **RGS Consulting International Inc.** of Coquitlam, BC, has been selected to undertake the review. RGS has previously managed the implementation of the technology components of TransLink's 98 B-Line in Greater Vancouver, and acts as Owner's Representative for many of TransLink's ITS initiatives.

EIS Electronic Integrated Systems has announced that it has signed a contract with the Missouri Department of Transportation to supply the RTMS traffic sensor with TCP/IP for the next phases of the St. Louis Missouri Gateway Guide. The procurement calls for the delivery of a total of 333 vehicle detectors over the next four years, and an upgrade of the existing 102 RTMS detectors to support TCP/IP communications.

ITS Canada Welcomes New Members

Forest Engineering Research Institute of Canada
(FERIC)
RTI Wireless



Upcoming Events

- **GML Days**
July 18 to 22, 2005 – Vancouver, B.C.
www.gmldays.com
- **7th Asia-Pacific ITS Forum and Exhibition**
August 9 to 11, 2005 – New Delhi, India
www.itsindia.org
- **TAC Annual Conference**
September 18 to 21, 2005 – Calgary, Alberta
www.tac-atc.ca
- **Intertraffic North America**
September 27 to 29, 2005 – Baltimore, Maryland
www.intertraffic.com
- **1st Pan American ITS Congress & Exhibition**
October 18 to 21, 2005 - Rio de Janeiro, Brazil
Call for papers has been issued
jabourchequer@terra.com.br
- **12th World Congress on ITS**
November 6 to 10, 2005 – San Francisco, CA
Call for papers – deadline January 14, 2005
www.ntpshow.com/shows/itswc05
- **2nd International Conference on Driver Behaviour Training**
November 15 to 17, 2005 – Edinburgh, UK
www.dbt2005.info
- **CUTA 2005 Fall Conference and Trans-Expo**
November 19 to 23, 2005 – Vancouver, BC
November 22 – Trans-Expo, Canada's Transit and Bus Exposition
www.cutaactu.on.ca
- **Highway-Railway Grade Crossing Workshop**
November 21 and 22, 2005 – Montreal, QC
www.tc.gc.ca/tdc/events/7workshop.htm
- **Gulf Traffic**
December 12 to 14, 2005 – Dubai, UAE
www.gulftraffic.com