



XIII INTERNATIONAL WINTER ROAD CONGRESS

QUÉBEC, FEBRUARY 8 TO 11, 2010

BULLETIN I



Québec 

SUSTAINABLE WINTER SERVICE FOR ROAD USERS





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**QUÉBEC MINISTER
OF TRANSPORT**

It is with great pride that I invite you to the city of Québec for the World Road Association's XIII International Winter Road Congress, to be held from February 8 to 11, 2010. Over the years, Québec has developed valuable expertise as a result of its severe winters, which leave no choice but to adapt.

Governments are focusing more and more on sustainable development, and we need to pursue our conversations so that we can all do better economically while at the same time respecting the environment in which we live. The International Winter Road Congress, whose theme will be "Sustainable Winter Service for Road Users", will bring together experts from around the world in order to explore new solutions.

I wish you all a pleasant stay in our capital city and sincerely hope that you have an interesting and rewarding experience.

Julie Boulet
JULIE BOULET



**PRESIDENT
OF THE WORLD ROAD ASSOCIATION (PIARC)**

On behalf of the World Road Association, I am very pleased to invite you to participate in the XIII International Winter Road Congress in the city of Québec, Canada, February 8-11, 2010. I am confident that this event will build further on the great success of our recent Paris and Turin congresses.

Sustainability, service and the needs of users are three highly significant issues facing today's providers and operators of all forms of infrastructure, especially roads and road transport in countries that experience snow, ice and freezing conditions, where safe and uninterrupted winter access to work, services and leisure services is vital.

The XIII International Winter Road Congress, with its theme of Sustainable Winter Service for Road Users, integrates these three issues in an exciting program that includes, in the context of winter service, the following topics:

- Winter Service Planning, Management and Implementation
- Safety and Mobility in Winter: Social, Environmental and Economic Aspects
- Winter Service Information Systems
- Snow and Ice Control Techniques and Technologies
- Winter Service and Sustainable Transportation
- Winter Service and Climate Change Impacts.

For each of these topics, the Congress will provide a forum for presenting results of research and innovation since the XII Congress in Turin and Sestrière in 2006, for exchanging knowledge on best practices, and for exploring challenges facing providers and operators of roads under winter conditions now and into the future.

On behalf of PIARC, I thank the Canadian and Québec Governments and the city of Québec for hosting this important congress. Please reserve February 8-11, 2010, so that we may look forward to seeing you in the very lovely World Heritage City of Québec.

COLIN JORDAN





SENIOR CANADIAN DELEGATE TO THE PIARC, MEMBER OF THE PIARC COMMUNICATIONS COMMISSION AND DIRECTOR GENERAL, SURFACE INFRASTRUCTURE PROGRAMS

As the First Delegate of Canada to the World Road Association and on behalf of the Canadian Government and the members of the Canadian National Committee, I am pleased to invite you to take part in the PIARC's XIII International Winter Road Congress to be held in the city of Québec from February 8 to 11, 2010.

Like Italy in 2006, Canada will be hosting both the Winter Olympics (in Vancouver, which is located in the western part of the country) and the Winter Road Congress (in the city of Québec, which is in the eastern part).

Most Canadians have to deal with winter roads, and all of the country's provincial and territorial governments frequently find themselves confronted with the problems which winter conditions create on our roads.

Canada's expertise with winter roads will therefore be front and centre during the exchange of information and best practices during the 2010 Congress.

The city of Québec is an excellent location for this important international meeting, and I look forward to seeing you there.

BRYCE CONRAD



MAYOR OF THE CITY OF QUÉBEC

There are many ways to live through winter. Some people complain, become depressed and simply put up with it for month after month. Others, however, take inspiration from it to create, innovate, invent and have fun.

It is this second category of people that you will find in the city of Québec for the World Road Association's XIII International Winter Road Congress, people constantly looking for innovative solutions to the challenges posed by climate change and record precipitation.

This important congress and exhibition will be taking place in February, in the middle of winter and, as it happens, during our Winter Carnival—our very own way of taming winter!

I am confident that productive discussions and pleasant moments await you in the city of Québec in February 2010.

I look forward to seeing you there!

RÉGIS LABEAUME



PRESIDENT OF THE ORGANIZING COMMITTEE OF THE XIII INTERNATIONAL WINTER ROAD CONGRESS AND QUÉBEC'S DEPUTY MINISTER OF TRANSPORT

On behalf of the Organizing Committee of the World Road Association's XIII International Winter Road Congress, I would personally like to invite you to this event, which is to be held from February 8 to 11, 2010, in the city of Québec, capital of the province of Québec, Canada. I am confident that the discussions at this meeting, which is of particular importance to countries that must deal with winter conditions, will further our understanding of winter roads.

Québec receives large amounts of snowfall every year and this has forced its people to develop leading-edge techniques and equipment. During the winter of 2007-2008, the city of Québec beat its own precipitation record with over 500 cm. Cold temperatures make winter service in Québec a major challenge that its inhabitants have managed to meet. You will have the opportunity to see for yourselves when you experience the Québec winter during the 2010 Congress.

It is with great pleasure that the Committee welcomes you to this major event. We look forward to seeing you!

DENYS JEAN



RENDEZ-VOUS QUÉBEC

Join us from February 8 to 11, 2010, for the World Road Association's XIII International Winter Road Congress in the city of Québec. Fifteen years after the XX PIARC World Road Congress in Montréal in 1995, the people of the city of Québec invite you to experience winter service in this place where winter is king. The region, which is close to major North American centres of business and research, is home to some renowned post-secondary institutions as well as numerous research and technology transfer centres and some 140 research groups affiliated with Université Laval. The expertise that has been developed with respect to winter roads has enabled Québeckers to design the materials, techniques and equipment with which we have built durable structures and safe roads. At the Congress, you will have a chance to appreciate Québec's winter road know-how.

WELCOME TO THE CITY OF QUÉBEC

Located at the mouth of the St. Lawrence River, the city of Québec will charm you with its culture, its architecture of mixed French and British influence, and its diversified cuisine. Well known for its Old World charm combined with New World comfort, it is the only fortified city north of Mexico. Since 1985, its historical district has been on UNESCO's World Heritage List.

In summer and winter, the provincial capital offers a wealth of discoveries and activities for all tastes. Whether you wish to visit one of our museums or historical sites, or participate in an outdoor activity or extreme winter sport, you will be only minutes away from most of the tourist attractions the city has on offer. And let's not forget the Québec Carnival, the largest winter carnival in the world, which has made us "experts in winter festivities". The Carnival will be under way during the 2010 Congress.

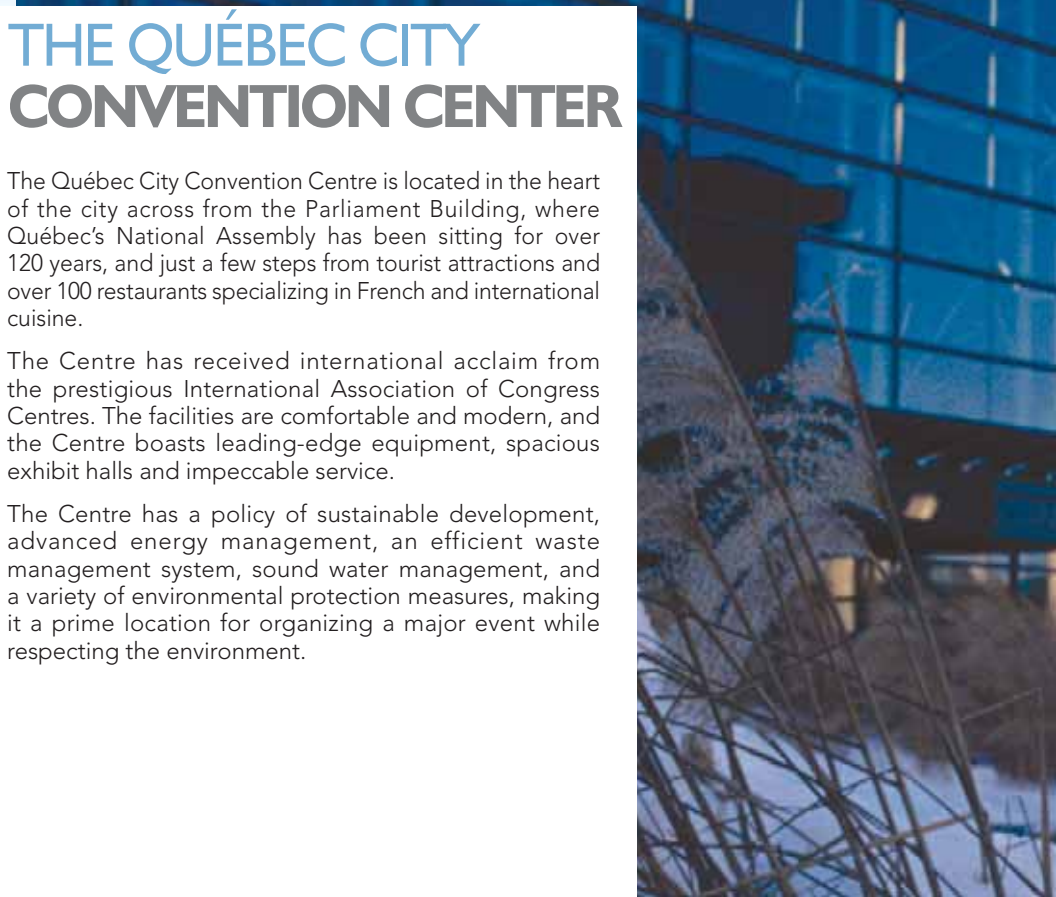
With its affordable accommodations and the legendary hospitality of its citizens, it's not surprising that the city of Québec welcomes over four million tourists each year!



CONGRESS LANGUAGES

The city of Québec's Congress will be a bilingual event, during which the two official languages will be French and English. Simultaneous interpretation services and translation of documents will be provided for all of the congress' technical sessions in addition to several activities

At last, let's mention that over 80% of Québec's population speaks French and the French-English bilingualism rate is the highest in Canada at 40%.



THE QUÉBEC CITY CONVENTION CENTER

The Québec City Convention Centre is located in the heart of the city across from the Parliament Building, where Québec's National Assembly has been sitting for over 120 years, and just a few steps from tourist attractions and over 100 restaurants specializing in French and international cuisine.

The Centre has received international acclaim from the prestigious International Association of Congress Centres. The facilities are comfortable and modern, and the Centre boasts leading-edge equipment, spacious exhibit halls and impeccable service.

The Centre has a policy of sustainable development, advanced energy management, an efficient waste management system, sound water management, and a variety of environmental protection measures, making it a prime location for organizing a major event while respecting the environment.



GENERAL CONGRESS PROGRAM

OPENING CEREMONY

MONDAY, FEBRUARY 8

The official opening of the XIII International Winter Road Congress will take place in the afternoon of February 8. All participants already on site, whether congress delegates, guides or exhibitors, are welcomed. This ceremony will be followed by the official opening of the exhibition.

MEETINGS OF DIGNITARIES

One of the sessions will be a meeting of the mayors of major winter cities from various continents. Congress delegates may attend the discussions.

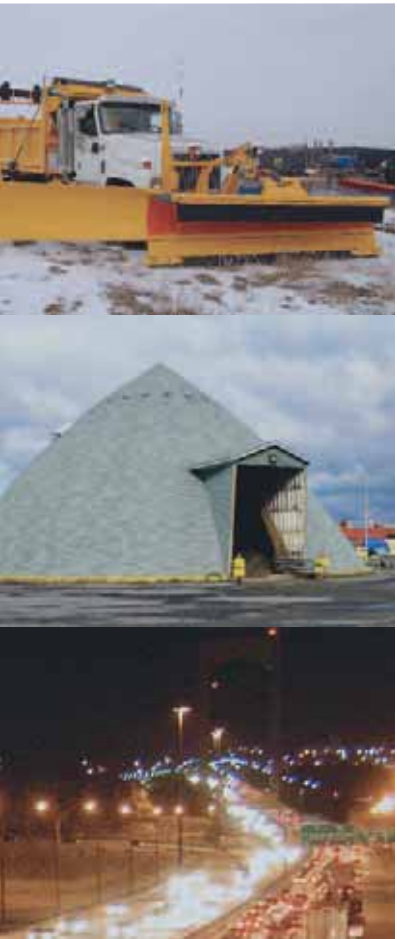
PAPERS AND POSTERS

Three half days will be dedicated to simultaneous technical sessions on the six Congress themes described on page 10. There will also be posters on these themes near the rooms where papers are being read.

EXHIBITION

The exhibition, a highlight of the XIII International Winter Road Congress, will be held at the Québec City Convention Centre from February 8 to 11, 2010. It will provide an opportunity for exhibitors to present their latest achievements, new products and equipment. Exhibitors will also be able to develop profitable relationships in just a few days and make themselves better known. In order to facilitate exchanges between congress delegates and exhibitors, coffee breaks will be offered in the exhibit hall on February 9 and 10. Lunch will also be served on February 9 and 11 at a reasonable price. Among the exhibitors expected to attend:

- road authorities that are members of the World Road Association;
- winter road consultants and specialists;
- manufacturers and suppliers of winter road equipment;
- winter road technical associations;
- government agencies;
- road construction companies.



A Spacious Exhibit Hall

Combining modernity and comfort, the Québec City Convention Centre is an internationally renowned meeting place, known for the quality of its facilities and located at the heart of an exceptional urban setting. Features of the exhibit hall:

- Floor area: 6,970 m² (75,000 sq. ft.)
- Overhead clearance: 9 m (30 ft.)
- Space for 410 booths
- Electrical, natural gas, compressed air and water hook-ups, as well as telephone and computer lines housed in troughs in the floor
- Two unloading areas with 10 docks, 7 of which are underground

For more information on the exhibition, please visit the official Congress Web site: www.piarquebec2010.org.

DATES TO REMEMBER

Opening date for booth reservations
From now on

Registration deadline for the exhibition
January 29, 2010

INTERNATIONAL SNOWPLOW CHAMPIONSHIP AND EQUIPMENT DEMONSTRATIONS

The XIII International Winter Road Congress will provide the opportunity to attend not only the first international snowplow championship, but also equipment demonstrations. These events will be held on the afternoon of February 10.



TECHNICAL VISITS

Every delegate will be able to take part in one technical visit of his or her choice.

The complete list of technical visits has not yet been finalized, but the following will be available:

- Québec Department of Transport's service centre, which is in charge of maintaining and operating roads;
- The city of Québec's integrated traffic management centre, which provides information for managing congestion and traffic flow;
- The snow storage facilities in Lévis, which reduce the negative effects of melting snow on the region's water courses;
- The geothermal snow-melting facility at Cap-Rouge, which uses an effective, cheap and safe technique to dispose of snow.

CLOSING SESSION

THURSDAY, FEBRUARY 11

The XIII International Winter Road Congress will wind down on the afternoon of February 11. The ceremony will provide an opportunity to draw the first conclusions from the week of meetings. In addition, upcoming congresses of the World Road Association will be announced.

SOCIAL PROGRAM

The program includes social activities as well as events for accompanying persons.

CONGRESS THEMES

GENERAL THEME

Sustainable Winter Service for Road Users

TOPICS

Sustainable Winter Service begins with taking a customer and road user's orientation regarding requirements and levels of service, and includes winter weather and transportation system impacts, information services, decision support systems, the full range of mitigation techniques and technologies, actual operations in multiple climatic and social settings, and the impacts (environmental, social, economic) of the operations. Sustainability also includes planning and management of the entire system, along with its performance (cost-benefit) and evolution, in relation to both society and the environment.

Topic 1: Winter Service Planning, Management and Implementation

- Level of service: How to include road users needs and rules?
- Strategic planning and organization (what rules, standard, evaluation)
- Relationships between all parties (managers, operators, road users...)
- Contracting types versus in-house implementation
- Cost-benefit: achieving the optimum balance?
- Staff Training
- Instructing/Informing the road users
- Risk and contingency planning
- Quality and performance management

Topic 2: Safety and Mobility in Winter: Social, Environmental and Economic Aspects

- Road users' needs and responsibilities
 - > responsibility and education of road users
 - > risk and mobility for pedestrians, cyclists, & people with reduced mobility
 - > nature of the information for road users and dissemination methods
- Network safety and mobility
 - > safety and capacity compliant road infrastructure in winter
 - > weather-based measures for proactive traffic management
 - > safer winter road operations
- Innovative technologies (along the infrastructure and in vehicle) mitigating safety and mobility problems in winter: ITS solutions, cooperative systems, Human-Machine Interface (HMI).

Topic 3: Winter Service Information System

- Information tools to the manager/operator; tools for the interface between meteorology and road management
 - > surface condition detection: friction, road surface temperature, short term forecasts
 - > traffic management and emergency management
 - > on line/real time information of road users
- Data management/data processing
 - > new developments, new application for an improved winter road management, e.g. Maintenance Decision Support Systems





Topic 4: Snow and Ice Control Techniques and Technologies

- Standardization efforts (all areas of Winter Service)
- Machinery and equipment
 - > plow blades and spreaders
 - > winter service vehicle markings and lighting
 - > optimized spreader controls
 - > maintenance of winter service machinery
- Infrastructure
 - > fixed auto-spray systems
 - > surface treatments – implementation of different techniques according to different types of pavements - innovative pavement materials
 - > self-maintaining structures (bridges and sidewalks)
- Specific applications, strategies and tactics
 - > winter service for urban and rural areas
 - > winter service operations for pedestrians, cyclists and aging population
- Innovative application techniques
- Implementation of artificial and natural snow fences

Topic 5: Winter Service and Sustainable Transportation

- What is sustainability?
 - > holistic impacts studies
 - > life cycle impacts
 - > social, economy, safety: the right balance
 - > concrete examples
- Sustainable strategies
 - > adapted policies
 - > adapted equipments and materials
 - > road salt: storage, spreading
 - > environmentally friendly materials and techniques
 - > strategies between environmental aspect and safety
- Economic aspects: mobility

Topic 6: Winter Service and Climate Change Impacts

- Situation analysis for Winter Service: which method, which data?
- Generating relevant scenarios dedicated to winter maintenance
 - > short term
 - > long term
- New strategies
 - > on the transportation system
 - > on winter maintenance approaches
- Focus on specific items
 - > reduction in permafrost/ground frost
 - > new challenges in using ice roads
 - > greater avalanche risk
 - > how to manage Winter Service during rapid and significant weather fluctuations



CALL FOR PAPERS

The organizing committee invites specialists with expertise in winter roads to submit proposals for papers (abstracts) in order to take part as speakers at the World Road Association's XIII International Winter Road Congress. Selected papers will be included in the congress proceedings.

The content of presented papers can include research findings, scientific study, case studies, and organizational methods.

SUBMISSION OF ABSTRACTS

To submit an abstract, please follow the Abstract Submission link on the official Congress Web site: www.aipcrquebec2010.org

You will need to provide the following information:

Name
Title
Affiliation
Address
Country
E-mail
Telephone
Fax
Congress Theme (see note #1)
Abstract Title
Abstract (see note #2)

Notes:

1. You must select, from the six Congress Themes on pages 10 and 11, the one to which your paper applies.
2. Your abstract must be submitted in both English and French, with a maximum of 400 words per language. The Abstract must include a summary of the research topic, method and conclusions.



The abstracts and full papers will be reviewed anonymously by the Congress Scientific Committee composed of members of PIARC Technical Committee B5.

The criteria used to assess the abstracts are the novelty, the technical interest and the applicability and transferability to other organisations. Commercial papers can be accepted if not promoting/advertising.

Acceptance of the paper will only be made on the basis on the review of the full paper.

DATES TO REMEMBER

Call for papers

From now on

Deadline for proposals for papers (abstracts)

January 31, 2009

Notice of acceptance or rejection of abstracts

April 1, 2009

Deadline for full text of papers

July 31, 2009

Notice of final acceptance of papers

October 31, 2009

DATES TO REMEMBER

(PROVISIONAL)

-
- > Opening date for booth reservations
From now on

 - > Call for papers
From now on

 - > Start of congress registration
June 1, 2009

 - > Deadline for proposals for papers (abstracts)
January 31, 2009

 - > Notice of acceptance or rejection of abstracts
April 1, 2009

 - > Deadline for full text of papers
July 31, 2009

 - > Final notice of acceptance of papers
October 31, 2009

 - > Registration deadline for the exhibition
January 29, 2010



REGISTRATION

Registration for the Congress will begin on June 1, 2009, through the congress Web site. Registration fees will be announced by that date. For the latest news, please consult the Web site regularly or add your name to the e-mail list by writing to us at:

quebec2010@agoracom.qc.ca



TRANSPORTATION AND ACCOMMODATION

TRANSPORTATION

By plane

The city of Québec is located one and a half hours from New York, Boston and Toronto, and only 40 minutes from Montréal. The Jean-Lesage International Airport is located 16 km from downtown.

Star Alliance™ has been appointed the official airline network for the XIII International Winter Road Congress.

In order to obtain the Star Alliance™ Conventions Plus discounts, please call the reservation office of a participating Star Alliance Member Airline and quote the Convention Code AC01S10 or visit the following Web site:

<https://conventionsplusrfdpdb.staralliance.com/jsp/DelegateLogin.jsp>

For information on the various means of transportation available to travellers, please consult the section "Passenger Services" on the airport's Web site:

www.aeroportdequebec.com

By train

Via Rail provides a few trips a day between Montréal and the city of Québec. There is also daily service between Toronto and Ottawa.

www.viarail.com

By bus

If you prefer to travel by bus from Montréal to the city of Québec, you can take the shuttle from Montréal-Trudeau airport to downtown Montréal, where Orléans Express has hourly departures from Montréal to the city of Québec. The bus ride takes about two and a half hours. Orléans Express also offers connections to other carriers.

www.oleansexpress.com



By car

Renting a car is another option for getting to the city of Québec. Two major highways connect the city of Québec and Montréal. If you wish to rent a car, you can do so either at the airport or in downtown Montréal or the city of Québec. In Québec, speed limits are displayed in kilometres/hour (100 km/h is equivalent to about 62 mph). Gas is sold by the litre (3¼ litres is equivalent to a US gallon). Please consult the city of Québec and Montréal airport Web sites for more information.

www.aeroportdequebec.com

www.admtl.com

ACCOMMODATION

Québec City offers many different hotel options. However, in light of February's often challenging weather conditions, and considering the amount of tourists who will be in town for the Winter Carnival, the organizing committee has reserved blocks of rooms in three hotels due to their closeness, comfort and the special terms they are offering Congress participants. To obtain a list of rates and for further hotel information, please visit the congress Web site at:

www.piarcquebec2010.org

Please contact the hotel of your choice directly for reservations and payments. Remember to indicate that you are participating in the XIII International Winter Road Congress to obtain the room rate discount.



WINTER IN THE CITY OF QUÉBEC IS...

- the Québec Carnival, the largest winter carnival in the world. Over 500,000 people attend each year, making it the third largest carnival in the world for all seasons, close behind the famous Rio and New Orleans carnivals.
- an ice hotel with an area of 3,000 m², made of 500 tons of ice and 15,000 tons of snow. You can visit this temporary structure, which is less than 30 minutes from the city of Québec, and have a drink at the hotel bar. The more adventurous can even experience an overnight stay in this unique environment.
- the Valcartier Vacation Village, the largest winter playground in North America. One of its attractions, the Everest, is the highest accelerating slide in the Americas, at 33 metres (110 feet).
- four downhill skiing and snowboarding resorts. Ski in an enchanting landscape less than 30 minutes from the city of Québec!
- the "white road", which enables inhabitants of the Basse-Côte-Nord region to get around more easily during the winter. In summer, travel between the towns and villages on the Côte-Nord means going by water or air, but in winter, the white road provides nearly 450 km of snowmobile trails, so that connections between these towns are actually better during the cold season!

... and much more!



STANDING INTERNATIONAL ROAD WEATHER COMMISSION (SIRWEC)

Please join us for the XV International Road Weather Conference to be held in the city of Québec just prior to the World Road Association's XIII International Winter Road Congress.

CONFERENCE GOALS

The Standing International Road Weather Commission (SIRWEC) is a forum for the exchange of information on state-of-the-art technology between road engineers, climatologists and meteorologists. The objective of the biennial meetings is to promote improvements in snow and ice control operations with a focus on specialized road weather forecasting and climatological measuring techniques as well as improvements in winter maintenance organization.

The SIRWEC is celebrating its 25th anniversary this year!

For more information: <http://sirwec.org>



credit: Xdchaz.com

credit: Valcartier Vacation Village

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