

New Challenges for Winter Road Service



冬道 Daily Bulletin

Winter Roads
Fuyu Michi

Association
mondiale
de la Route



World Road
Association

XIth PIARC Int'l Winter Road Congress, 2002 Closes in Sapporo

Great Achievements in Global Fellowship, Environmental Conservation



Today, the fourth day of exchanges on snow and ice control and international friendship, marks the close of the XIth PIARC International Winter Road Congress. Held at Sapporo Dome from January 28 to 31, it has been the first Winter Road Congress of the century and the largest such Congress ever. The organizers counted 169 presenters and 576 booths, and the results resonate with the Congress theme of "New Challenges for Winter Road Service."

Because this has been the first Congress held in Asia,

many neighboring countries took part. China made its first appearance at such a Congress, and India requested proposals on maintenance for roads that wind through its 5,000-meter-high mountains. Also worthy of note is the promotion of international friendship that was achieved here through efforts toward better winter road management.

Many presentations emphasized environmental concerns. Environmentally friendly technologies and related research drew significant interest from Congress



participants. Examples include road surface freezing prevention technologies and snow-melting systems powered by natural energy, such as geothermal and solar, or by the residual heat of waste incineration. The Technical Visits elicited strong interest in snow-melting tanks which employ sewerage facilities of Sapporo.

There were also suggestions for placing higher priority on incorporation of cost/benefit analysis into road

maintenance measures. One expert described how five service levels are set, depending on weather conditions. Many other presentations explored the application of technologies for the collection and distribution of road management information, a leading trend.

Attendance for the four days is expected to reach 70,000, a figure which reflects the high interest among local residents. Participating countries judged the programs and the organization itself to be a rousing success. The results will form a basis for improvements as we approach the XIIth PIARC International Winter Road Congress 2006, in Sestrière, Italy.



Attendance Figures as of January 30, 2002

January 28, 2002.....	6,533
January 29, 2002....	26,731
January 30, 2002....	25,356
Total.....	58,620

Special Session Considers "Winter Road Service in the 21st Century" Ten Regional Panelists Dig In



At the Special Session on "Winter Road Service in the 21st Century," ten panelists representing seven regions plus the host country introduced issues of road management in the dawning century, and discussed how to meet new challenges.

The panelists focused on the four topics: mobility in winter and service level of winter roads, safety and environment, sharing of responsibilities among the public and private sectors, and new technologies.

Mr. Hiroshi Mitani, Past President of PIARC and Senior Advisor, Metropolitan Expressway Public Corp., Japan, moderated the discussion.

From North America there was Mr.

Mark R. Wikelius, Minnesota State Engineer, Minnesota Department of Transportation of the U.S. From South/Central America was Mr. Rolando Toloza Norambuena, Regional Director of Roads, XI Region, Ministry of Public Works. From Northern Europe was Mr. Eero Karjaluo, Director General, Finnish Road Administration and PIARC First Delegate of Finland. From the Baltic Region was Dr. Virgaudas Puodžiukas, Director General, Lithuanian Road Administration, Ministry of Transport & Communication and PIARC First Delegate from Lithuania. From Central/Eastern Europe was Dr. Péter Lányi, Head of Road and Bridges Division, Department for Roads, Minis-

try of Transport and Water Management, Hungary. From Western Europe was Mr. Mike Wilson, Team Leader of Operational Policy, Highways Agency, U.K. From Asia was Mr. Feng Zhenglin, Director General, Highway Department, Ministry of Communications and PIARC First Delegate of China. The host country fielded Mr. Nobuo Katsura, Mayor of Sapporo.

Summarizing the discussion, rapporteur Ms. Ginny Clarke, PIARC ST3 Co-ordinator and Chief Highway Engineer, Highways Agency, U.K., highlighted several common themes. These included the great length of winter in many Northern regions, the substantial costs of keeping roads trafficable in winter, new approaches to procurement, and a focus on technical measures.



In Their Own Words

Road Management Enlisting the Private Sector



- Hiroshi MITANI
Past President of PIARC

The Past President of PIARC summed up the Sapporo Congress with these generous words: "This Congress has been fruitful not only in terms of the great number of participants from overseas, but also in the excellence of its programs. We saw particularly active discussion on sharing of responsibility between the public and private sectors, and attendees proposed ways of harnessing the vitality of the private sector. In this regard, this Congress has been extraordinarily meaningful."

A Warm Feeling from a Wintery City



- Ginny CLARK, PIARC ST3 Co-ordinator and Chief Highway Engineer, Highways Agency, U.K.

"Sapporo is a very beautiful city," said Ms. Ginny Clarke, sharing her impressions of her first trip to Japan. She expressed surprise at the scale of the city. "I had not realized it had so many people," she said. "I've been very impressed by the subway system and how easy it is to get around," she added. She and her colleague, Mr. Mike Wilson, of the same agency, were moved by the cultural performances at the Opening Ceremony. They wished Sapporo the best as it hosts three games of the 2002 FIFA World Cup, including a match between England and Argentina.

Poster Session



The Poster Session with 45 technical reports on six topics started at noon on the 30th. People stood in circles near the posters, and energetically discussed the issues.

Mr. Mohamed M. Alkoka from Canada, Operation Engineer, City of Ottawa gave a presentation entitled: "Effect of Using Advanced Winter Maintenance Technologies on Accident Rates

in the Region of Ottawa-Carleton." Ottawa road maintenance is supported by a road weather information system, and uses the wet spreading method of a two-type anti-freezing agent (salt) mixture. He used posters with colorful photographs depicting the process and politely gave concise answers to questions such as, "How do you effectively dissolve salts?"



and "How is the salt concentration controlled?"

Mr. Zhisheng Wang (China) and three others gave a presentation on three collaborative studies on the prevention of, and measures against snow disasters. Their presentation, "Computing the Break Point of Snow Slide," introduced a formula for avalanches based on the gradient of the slope, snow depth, and density that are specific to the local conditions in China. Mr. Jian Liu (China), who was in charge of explaining the study, made an indelible impression with his enthusiastic delivery of his presentation.



- Jian LIU explaining his group's report

"This Congress is very productive. It is cold in Sapporo, but people are warm-hearted."



- Mohamed M. ALKOKA

"I think it is important to learn from each other, and for engineers from around the world to share information."

Congress Organization and Planning Exemplary

- Jean-François COSTE, Secretary General of the PIARC Executive Committee



Takashi Sakai (Japan), Secretary General of the Japanese Organizing Committee for the XIth PIARC International Winter Road Congress, has endeavored greatly in the preparations for this event. Mr. Sakai interviewed Mr. Jean-François Coste (France), Secretary General of the PIARC Executive Committee, about his impressions of this year's Congress.

Mr. Coste praised the event, calling it one of the best-organized road congresses he has ever attended. All the events were presented with flair and came to a successful

conclusion, he added. When congratulated on his birthday, which fell on the day before the Congress, Mr. Coste replied that Mr. Sakai was celebrating a birthday of his own, which came two days after Mr. Coste's. The proximity of their birthdays reflected the harmony evinced by these two PIARC dignitaries.

Mr. Coste has been involved in two international congresses since he took his position as Secretary General of PIARC in 1997. A self-professed Japanophile, he has made four visits to the country.

Yesterday's Shots



Sapporo Information Network Co., Ltd.



The Moiwashita Snow-Fl



Atsubetsu Snow-Melting Tank



Free photos of the Congress



Ishikari Blowing Snow



The Institute of Low T



The Japan Booth



Visitors flock to the



wing Gutter



Driving simulator at the Road Information Center



Test Field



Design for storm drainage friendly to small animals



temperature Science



Congress Dinner

Please join the IRF (International Road Federation), 2005 in Bangkok, Thailand



Japan Booth for gifts



Congress Dinner



- Nisarat ADSAWAPORNWASIN Thai Booth

Looking Back on the Congress

Passing on the Torch of Technology Transfer

This Congress had the secondary, but unofficial, theme of "New Challenges for Sapporo Dome." As the event's organizers, we felt we had to prove ourselves, possibly a greater challenge than producing a successful event. We focused on whether we in fact study roads from a user perspective. That is, we reviewed from different viewpoints the services we provide, e.g. access for the disabled. Essentially it is a question of offering the best possible road conditions to different categories of users.

We are happy so many people attended the Congress. I was delighted with the participation of eight technical high schools; more than 500



Michio HIRANO
President, Local Executive Committee for the XIth PIARC International Winter Road Congress, 2002, Sapporo, Japan

Takashi SAKAI
Secretary General of the XIth PIARC International Winter Road Congress, 2002, Sapporo, Japan

hundred students came. That the next generation will carry onward the excitement, enthusiasm, and technologies showcased here is one of the great successes of this Congress.

I believe that this Congress was a resounding success, the natural consequence of selecting Sapporo as the site for the event. We hoped to present new technologies related to winter road traffic

Challenges and Vision in Future Reforms

management to as many people as possible. Our target was 50,000 attendees. I am happy to report that even before the final count of the closing day, we exceeded this goal. Indeed, this achievement is testimony to the hard work of the dedicated staff, who numbered 10,000 for the four-day period. Great achievements of this event include a large collection of excellent technical papers and exhibits from different countries. Another is the fact that the event attracted many Asian participants. The XIth Congress has showed the way toward future innovation, as befits its theme, "New Challenges for Winter Road Service."

Multi-telemeter Unit Draws Interest Technical Visit



On Wednesday the 30th, the second day of the Technical Visits, 33 people from ten countries including Sweden and the Netherlands visited SNET (Sapporo Information Network Co., Ltd.) on Technical Visit T-1.

After a tour of the computer room, the guests received a presentation on SNET systems, including a snowfall forecasting program.

The participants showed keen interest in a telemeter unit that integrates multiple sensors to enable the collec-

tion of a range of data, such as those on weather and snowfall intensity.

Another technology that proved popular was an information system in which a variety of information is provided in real-time to snow removal operators via dedicated telephone lines.

The presenters fielded questions on the costs of establishing the system architecture and maintaining its advanced subsystems.

Invitation to the Farewell Party

As a Congress participant or organizing staff member, you are invited to the Farewell Party at Sapporo Beer Garden, where you will have a chance to enjoy the local specialty of *jingisukan* (griddle-cooked mutton) and draft beer fresh from the brewery. We encourage all of you, participants and organizing staff, to promote mutual understanding by talking about your experiences during the Congress. Why not avail yourself of this last opportunity to make your stay in Sapporo even more memorable?

- (1) Time: 19:30 to 21:30, January 31 (Thursday), 2002
- (2) Venue: Sapporo Beer Garden (North 7 East 9, Chuo-ku, Sapporo; phone: 742-1531)
- (3) Fee: 3,500 yen (collected at the beer hall, tax included)
- (4) Bus: Shuttle buses for each hotel (Royton Sapporo, Keio Plaza Sapporo, Sapporo Grand Hotel) will offer a one-way ride to the Sapporo Beer Garden. The buses leave the hotel at 18:45, and bus seating is limited. No additional bus service will be available.



Snow- and Ice-Control Measures Launched!

Snow- and Ice-Control Measures **VOL.4**

As described in the three previous Bulletins, the City of Sapporo's snow- and ice-control measures have altered the winter of Sapporo to an extent that would have been unimaginable during Hokkaido's early development. Today, by the time we have awoken, the snow has been removed from trunk roads and streets in front of our homes -- and even from the sidewalks. Economic activities and daily routines, including commuting and shopping, are secured virtually every day in winter. The passion and wisdom bequeathed to us by our forebears have reduced the hardships of the snowy region to the current extent.

Even so, opinion polls on city administration for the last 23 years show that citizens have continuously ranked "improved snow removal" as their greatest need. The needs of citizens for snow- and ice-control measures are becoming more specific and diverse. However, the yearly budget for such measures now amounts to 15 billion yen, and endless increases -- or even further increases -- are unacceptable. Our snow- and ice-control measures must be made more efficient and effective

through the full use of our wisdom. New measures currently undertaken are as follows:

1. Scheduled snow removal

The removal day is scheduled for each district (District A on Monday, District B on Tuesday, etc.) for daytime snow removal on residential streets. Compared with traditional snow removal, which was performed

only at night, scheduled snow removal affords more efficient removal, which increases the availability of removal machinery. It also improves the thoroughness of removal toward reducing the need for individual residents to clear snow from entrances fronting on the street.

2. Local snow-disposal system

Toward the establishment of

a snow removal and disposal system that eliminates the need to transport snow beyond the local district, construction of small- and mid-sized facilities is under examination. For example, in local open spaces such as parks and school grounds, snow is temporarily stored and later melted by sewer water.

3. Review of road surface management methods

As a countermeasure against the icy road surfaces that have emerged since the ban on studded tires, the City of Sapporo has been urgently installing road heating on steep slopes.

However, the operating costs of these facilities have become a major burden on City finances. Therefore, the City is moving from



road heating to new methods in steep slope management.

In future, steep slopes will be managed according to a combination of improved snow removal and intensified anti-freezing agent application, wherever use of road heating can be discontinued.



The City of Sapporo gained certification in ISO14001, an international standard for environmental management systems, on November 22, 2001. The City is pursuing environmentally friendly administration.

Also, in light of the "Environmental Guideline for Snow- and Ice-Control Measures by the City of Sapporo," the City is targeting the realization of comfortable winter life, as well as environmental conservation and restoration.

Exhibition Site

On the third day of the Congress, many visitors came to demonstrations and events of local regions. At the Tohoku Booth, the audience gave a big hand for a powerful performance of the Tsugaru shamisen. Spectators formed long lines to see the Navigation Stage of the Hokuriku Booth. Demonstrated in the Outdoor Exhibition Site were rotary snow blowers. Spectators from warmer regions were awed by the sight of the rotary snow blowers sending up snow into the air.



Visit the Congress, Witness Olympic History in 2006, in Snowy Sestrière, Italy



Sestrière

Sestrière, Italy, will host the XIIth PIARC International Winter Road Congress, 2006. Located in western Italy on the French border, Sestrière and the surrounding area receive some of the heaviest snowfall in Europe. The city lies within the Torino-Sestrière region, a world-famous ski resort area. This region has served as a venue for the FIS World Cup and many other winter sports events, a fact that paved the way for its successful bid to host the 2006 Winter Olympic Games. Historical and cultural attractions scattered throughout the area provide a steady draw for tourists.

The next Congress is expected to offer the unique opportunity for winter road experts to exchange information and technological advances for a brighter future, while they experience

the excitement of the Olympics at the same time.



PIARC Italy

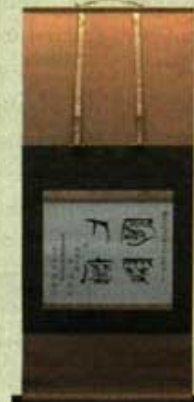


City emblem of Sestrière



Presentation of a Memento by the City of Sapporo to the City of Sestrière, the Next Congress Venue

Before the Congress closes, a hanging scroll will be presented by the City of Sapporo as a memento to Sestrière, the next Congress host. It is a Japanese tradition to hang a scroll in the *tokonoma*, or Japanese alcove, or on the wall of a reception room so that host and guest alike may appreciate it.



The saying on the scroll expresses the thought that people will be ennobled through the discipline of extreme winds and snow.

"Severe climate" is a metaphor for the hardships of life.



People



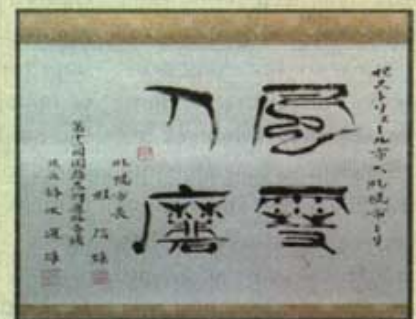
Wind



Discipline



Snow



Jan. 31 (Thu)

- Oral Presentation
9:00 a.m. ~ 12:50 p.m. Sapporo Dome
- Closing Session
2:20 p.m. ~ 3:50 p.m. Sapporo Dome
- Closing Ceremony
4:00 p.m. ~ 5:00 p.m. Sapporo Dome
- Technical Visits
T-1, T-2 & T-7 depart 9:30 a.m.
Sapporo Dome
For more information on courses, refer to the Technical Visit Guidebook.
- Exhibition
Hours Indoor 9:30 a.m. ~ 4:00 p.m.
Outdoor 10:00 a.m. ~ 3:00 p.m.
Exhibition and demonstration of snow-removal machinery
10:00 a.m. ~ 3:00 p.m.

Desk and Restaurant Hours

- Information Desk
8:00 a.m. - 5:00 p.m., 31 Jan. (Thu.)
- Registration Desk
(Congress Registration for Full-Registrants & Accompanying Persons)
8:00 a.m. - 5:00 p.m., 31 Jan. (Thu.)
- Registration Desk for Technical Visits
8:00 a.m. - 9:20 a.m., 31 Jan. (Thu.)
- Testing Room Desk
8:00 a.m. - 4:20 p.m., 31 Jan. (Thu.)
- Travel Desk (JTB Corp.)
8:00 a.m. - 5:00 p.m., 31 Jan. (Thu.)

Restaurants

- Sports Stadium Sapporo (1F) 11:00 a.m. - 7:00 p.m.
- Fan's Cafe (1F) 11:00 a.m. - 7:00 p.m.
- Bowbridge Cafe (3F) 10:00 a.m. - 6:00 p.m.