

New Challenges for Winter Road Service



冬道 Daily Bulletin

Winter Roads
Fuyu Michi

Association
mondiale
de la Route



World Road
Association

Technical Program Begins

Opening Session Launched with Presentations by Former President of Switzerland and Other Speakers



The Technical Program of the XIth International Winter Road Congress commenced on the 29th (Tuesday). Three keynote speakers from Japan and abroad gave presentations on the study of road traffic problems and the global environment. Mr. Ogi, the former President of Switzerland, spoke on "Mobility for a Better World." Mr. Hisakazu Ohishi, the First Delegate of Japan and Director-General of the Road Bureau, Ministry of Land, Infrastructure and Transport, made a presentation on "Winter Road Traffic and ITS." Dr. Shun-ichi Akasofu of the University of Alaska, Fairbanks closed with a lecture on "The Aurora and the North Pole." Today, the second day of the Technical Program, will feature a Special Session in which a panel of international experts will discuss "Winter Road Services for the 21st Century."

Technical Program: 169 papers from 26 countries Oral and Poster Presentations

The Technical Program, the main component of the Congress, opened on the 29th (Tuesday). Experts will be presenting their research results in Oral Presentations and Poster Session, grouped into six topics. The former presentations deal with comprehensive issues, and the latter deal with specialized ones. Selected papers numbered 169 from 26 countries. Oral Presentation Sessions on "Winter Road Policies and Strategies" (Topic I) and "Environment and Energy" (Topic IV) begin today. Those on "Snow and Ice Management, and Its Costs" (Topic II), "Winter Road Issues and Traffic Safety in Urban Areas" (Topic III), "Telecommunications Technology" (Topic V), and "Development of Snow-Removal and Ice-Control Technology" (Topic VI) began yesterday. Since this is the first PIARC Congress in Asia, many participants are here from around the region: China is taking part for the first time, and India has requested proposals on maintenance for its roads winding through 5,000-meter-high mountains. The Oral Presentations will continue until the 31st (Thursday). The Poster Sessions are scheduled only for the 30th (Wednesday).

Québec Expresses Hope to Host PIARC Congress in 2010



At the opening of the Québec Pavilion, Ms. Anne-Marie Leclerc, Assistant Deputy Minister, Infrastructure and Technology, Québec Ministry of Transportation, announced that her province hopes to host the 2010 International Winter Road Congress in Québec City.

Attendance Figures as of January 30, 2002

January 28, 2002.....	6,533
January 29, 2002.....	26,731
Total.....	33,264

Opening Session: Keynote Speakers Spotlight Arctic Phenomena, Future of Roads

On a wintry white stage erected specially for the Congress, three keynote speakers shared their expertise on measures for winter roads and on natural phenomena unique to snowy regions, on Tuesday the 29th.

Adolf OGI

Adolf OGI, Former President of Switzerland and current U.N. Secretary General's Special Advisor on Sport for Development and Peace,



Mr. Toshiki Aoyama (Japan), the Vice Minister of Land, Infrastructure and Transport, welcomed the speakers by recognizing the importance of their respective contributions to politics, road maintenance and science. The first speaker was Mr. Adolf Ogi, former President of Switzerland and current U.N. Secretary General's Special Advisor on Sport for Development and Peace, Switzerland. Mr. Ogi gave a rousing address on "Mobility for a Better World," at this stop on his way to the Winter Olympics in Salt Lake City. He was followed by Mr.

Ohishi Hisakazu (Japan), Director General, Road Bureau, Ministry of Land, Infrastructure and Transport, who spoke on "Winter Road Traffic and ITS." The distinguished researcher Dr. Shun-ichi Akasofu, Director of the International Arctic Research Center, University of Alaska, Fairbanks, thrilled the audience with vivid descriptions of Northern phenomena in a talk entitled "The Aurora and the North Pole."

The stirring words and amazing images captivated an audience of hundreds.

Mr. Ogi greeted the audience in Japanese and fondly recalled his first trip to Sapporo thirty years ago for the 1972 Winter Olympic Games. He noted that Sapporo "still enjoys a fabulous image in Switzerland." Traffic demand has increased greatly in his coun-

try, he said, calling for pioneering responses to such increases. "Pioneers are driven by a belief, by optimism," he said, proposing that it is the job of road managers to unite that optimism with the realities of road conditions and maintenance.

Japan's cold, snowy regions are among the snowiest areas of high population in the world, Mr. Ohishi said. Even so, these regions enjoy an economic output equal to that of all Scandinavia or to that of Canada. He noted that effective countermeasures have helped to reduce snow disasters, although

challenges remain. In Sapporo, these include the slippery road surfaces that have emerged since studded tires were banned, and the need to realize "barrier-free" mobility amidst rapid demographic aging. The audience was treated to visuals of cutting-edge ITS systems under development in Japan.



OHISHI Hisakazu

OHISHI Hisakazu
Director General, Road Bureau,
Ministry of Land,
Infrastructure and Transport, Japan



Shun-ichi AKASOFU

Dr. Shun-ichi AKASOFU
Director of the International Arctic
Research Center, University of
Alaska Fairbanks

Despite their familiarity with arctic environments, attendees were amazed by Dr. Akasofu's lucid scientific explanations and vivid images of Northern phenomena. Visuals of the aurora included spectacular real-time videos taken by supersensitive cameras, and even shots from outer space. Dr. Akasofu noted the importance of arctic

studies regarding the clarification of climate changes. He added that global warming could multiply the difficulties of building and maintaining roads in permafrost areas. Auroras may even be able to indicate the presence of life on planets beyond our solar system, because their spectra can distinguish the presence of oxygen.

Information Exchanged on Six Topics

In the Technical Program, Oral Presentations opened on six topics. In each topic, interesting discussions were held, and experts from various countries enthusiastically shared information on the latest technologies.

TOPIC I

Presentations Focus on Providing Information in Response to End Users' Needs

Under the theme of "Snow and Ice Management, and Its Costs" (Topic II), one presentation drew particular interest by emphasizing that the sharing of useful information is crucial to safe, efficient winter road management. Although a broad spectrum of road information is available to anyone, it is not always useful. Scholars from several countries pointed out that this incongruity is responsible for a rise in information costs. Mr. Wilfrid A. Nixon (U.S.A.), a professor at the University of Iowa, introduced a method whereby one can determine the type of information that



best satisfies the needs of the end user. He reminded the audience that information should be created based on end users' needs by taking into account the timing, accuracy and practicality of that information.



TOPIC VI

Presentations Call for Development of Snow-Removal and Ice-Control Technology to Reduce Operating Costs and Traffic Accidents

A winter road management support system was one of several measures proposed under Topic VI's theme of "Development of Snow-Removal and Ice-Control Technology." The presentation "Improvements to Snow and Ice Control on European Roads and Bridges," by Ms. Marilyn Burtwell (U.K.), drew great attention. She introduced a vision for winter roads in the E.U. of the 21st century, making bold predictions based on a three-year project started in 1999. The project, which has involved eight countries, will help reduce operating costs and traf-

fic accidents throughout the European road network as a result of technological improvements in snow removal and ice control.



India Debuts Today as Congress Presenter

Mr. S.S. Porwal, a road management official from New Delhi, India, will speak on "Snow and Ice Management in Himalayas" under the Topic II (Snow and Ice Management, and Its Costs). This marks the first Indian presentation at any PIARC Winter Road Congress. It is his sincere wish to learn from the example of Japan's "fighting spirit," which enabled the remarkable postwar recovery. Mr. Porwal came to Japan with the hope of returning to his country with an understanding of Japan's technology, which in his opinion exemplifies this country's 'fighting spirit.'

Situated at elevations that range from 2,500 to 5,000 meters, roads in the Himalayas face very severe conditions. The temperatures in winter plummet to between -35 and -50 degrees, and in some places, the snow can be 30 meters deep. The roads in this area are fraught with problems, such as frequent avalanche, frozen road surface, and snowmelt erosion. During the presentation, he will use supporting data to illustrate the severity of the problems.

Mr. S.S. Porwal's Impressions of the Opening Ceremony

"I would like to take the occasion of this Congress to introduce the conditions surrounding roads in the Himalayas. It is my wish to find a way toward collaborative efforts to solve the problems of mountain roads. . . . I found the drum played at the attraction for the opening ceremony to be quite similar to one we have in India. I wonder if Buddhism serves as a common denominator for the Japanese and Indian cultures."



Interview with Anne Leppanen



Finnish National Road Association

"Sapporo is very interesting because the snow problem is bigger than in Finland," said Anne Leppanen shortly after her arrival. In her Technical Presentation on Thursday entitled "Finland Pioneers Standards-Based Approach", she will discuss her country's experiences in defining standards for winter road maintenance, including standards for contractors. Ms. Leppanen first visited Sapporo a decade ago to study issues related to studded tires.

From Technical Visits

Atsubetsu
Snow-Melting Tank



Sapporo IC (ETC)

Snow dumping at Hass

Yesterday's Shots

All the way
from India



Japanese Culture: the kimono



Trying a ha





Asahikawa Snow-Flowing Gutter



The Traffic Control Center of the Hokkaido Police



Workshop at kokeshi doll craft



Attendees from Québec, Canada



Japanese Culture: flower arrangement



Group hometown photo opportunity



Japanese Culture: tea ceremony

Topics of Exhibition



Indoor Exhibition

The Indoor Exhibition opened to the public on the morning of Tuesday, the 29th. A record number of 576 booths have been set up, including many of exhibitors from overseas. Sapporo Dome, the Exhibition venue, bustled with local visitors. Demonstrations of new user-friendly technologies such as the Safe-Driving Support System attracted great attention, and groups of high school students and middle-aged residents tried these hands-on displays and asked penetrating questions. The incredible diversity of languages and peoples has given the Exhibition an undeniably cosmopolitan ambiance.

Engineers of the Future Develop a Hybrid Generator



Booth of Four Technical High Schools in Hokkaido

Among the many booths established by businesses and organizations of the world, one is attracting special attention. This is the booth of students attending Tomakomai Technical High School and technical high schools in Wakkanai and other local municipalities. Fresh and exiting ideas are being exhibited here. For example, the students of Hokkaido Prefectural Wakkanai Commercial and Industrial Senior High School, at the northern extreme of Hokkaido, have designed a traffic sign powered by a hybrid generator. It is attracting much attention. Built with recycled materials, the hand-made device generates electricity using wind and solar power. The computer-controlled system is able to produce 100 kilowatts of electricity from wind as gentle as five meters per second.

"One of our classmates had a traffic accident on the way to school. We wanted come up with a way of keeping something like this from happening again. The system, which took us seniors two years to complete, won the top prize in the All-Japan Study Result Contest of Technical High Schools. Our dream is to see it put into practical use."



- Yuji MINATOGAWA, Hokkaido Prefectural Wakkanai Commercial and Industrial High School

Technical Visits



Technical Visits Kick Off Seven Courses to Choose From

Technical Visits, the tours to observe snow- and ice-control technologies and facilities, started on Tuesday, the 29th. Participants have a choice of seven courses.

Russian and Chinese attendees who opted for the Hassamu Snow-Melting Tank Course showed great interest in the system, which uses residual heat from the waste incineration plant. They also tried their hand at dumping snow into the conduit at the Hassamu Snow Flowing Gutter, whose ef-

iciency impressed them.

Another course took curious participants to the Kita-Hiroshima Snow Work Station of Japan Highway Public Corporation, where they observed snow removal trucks, anti-freezing agent spreaders, and rotary snow removers, and heard about the snow and ice control that the Corporation employs for the some 120 kilometers of expressway under its jurisdiction.

Snow- and Ice-Control Measures through Partnership: "Sapporo SCOP"

Snow- and Ice-Control Measures **VOL.3**



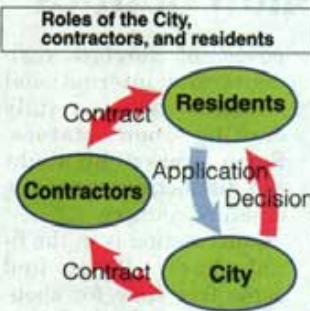
Sapporo SCOP-KUN

SCOP stands for the Sapporo Snow COMMunity Plan, an element of Sapporo's Master Plan for Snow and Ice Control (fiscal 2000 to 2009). SCOP, pronounced "sukoppu" in Japanese, means "shovel," and the acronym expresses the hope that all citizens will involve themselves in community efforts. The reason is that the Master Plan for Snow and Ice Control calls for partnership among citizens, contractors, and the City.

Through cooperation with citizens and contractors, the City of Sapporo is implementing the following snow- and ice-control measures:

1) Snow removal partnership system

The three parties concerned -- residents, contractors, and the City -- play their respective parts in snow disposal on residential roads. The scope of this system is expanding every year. Last winter, it was used for 1,613 km of residential road, or 54% of the length of all residential roads in the city (2,972 km).



2) Promotion of loans for snow-melting facilities

The City of Sapporo offers interest-free loans to citizens who wish to install snow-melting facilities, such as residential snow-melting tanks or road heating, to melt snow at and around residences. The up

No. of applications and acceptances



per limit of loans in the system, which are offered in cooperation with financial institutions, is 3 million yen. In 2001, loans numbered 1,737, totaling 1.874 billion yen.

3) Welfare-oriented snow removal

In Sapporo, 14% of the population were elderly (age 65 or over) in 2000, and this figure is projected to climb to 25% in 2020. In response to demographic aging, assistance is provided to the elderly and the handicapped for snow removal from areas including those fronting on the road and paths to the entrances of homes.

4) Grit box installation

Grit boxes are installed at intersections with heavy pedestrian traffic volume. Bags of sand (fine-grained gravel) are put in the grit box. When pedestrian overpasses and other places become difficult to walk on, anyone may spread the abrasive on the icy surface.



Housewives' Snow Scoop

This tool is owned by almost every household in the snowy regions of Japan. It is known as a "housewives' snow scoop." Of course, not only housewives use it.



Special Session on Wednesday Addresses "Winter Road Service in the 21st Century"

The Special Session of the Technical Programs is slated for 9 a.m. today. The theme is "Winter Road Service in the 21st Century." Topics include service level of winter roads, road safety and the road environment, roles of the public and private sectors, and new technologies. Mr. Hiroshi Mitani (Japan), the former President of PIARC,

will chair the session, with Ms. Ginny Clarke (U.K.), the PIARC ST3 Coordinator, acting as rapporteur. Road policy makers from eight countries (Chile, China, Finland, Hungary, Japan, Lithuania, the U.K., and the U.S.A.) will serve as panelists. Interesting discussions are expected.

C3 + C17 Joint Open Seminar (Admission: free)

Time: 14:30-16:30, 30 January (Wed.)
Site: Sapporo Dome, Room 6 (1st floor)

Discussion Themes:

- 1) PIARC activities on technology transfer
- 2) Main issues on winter road maintenance in developing and emerging countries

Agenda: 1) Presentation Session

- Mr. Olivier Michaud (President of PIARC)
- Mr. Mohamad Razali B. Othman (for ST5 Coordinator)
- C3, C17 activities on Technology Transfer

2) Discussion Session Open to Floor

- C3: Technical Committee on Technological Exchanges and Development
- C17: Technical Committee on Winter Maintenance

Jan. 30 (Wed)

- **Special Session**
9:00 a.m. ~ 12:00 p.m. Sapporo Dome
- **Poster Session**
12:00 p.m. ~ 2:00 p.m. Sapporo Dome
- **Oral Presentation**
2:00 p.m. ~ 5:20 p.m. Sapporo Dome
- **Technical Visits**
T-1 departs 9:30 a.m. and 1:00 p.m.
T-2 departs 9:30 a.m. and 1:00 p.m.
T-3 ~ T-6 depart 1:00 p.m.
T-7 departs 1:00, 2:00, 3:00 & 4:00 p.m.
For more information on courses, refer to the Technical Visit Guidebook.
- **Accompanying Person's Tours**
■ "Hands-on":
Tours A-1 & A-3 depart 1:00 p.m.
A-2 departs 12:30 p.m.
■ Sightseeing:
Tours A-4 ~ A-6 depart 9:00 a.m.
- **Exhibition**
Hours Indoor 9:30 a.m. ~ 7:00 p.m.
Outdoor 10:00 a.m. ~ 4:00 p.m.
Exhibition and demonstration of snow-removal machinery
10:00 a.m. ~ 4:00 p.m. Sapporo Dome
- **Congress Dinner**
7:30 p.m. ~ 9:30 p.m. Royton Sapporo

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 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. Sapporo Dome

Sapporo Snow Festival

2001.2.5 ~ 11



Introducing the Sapporo Snow Festival: Sculpting and Appreciating Snow Statues

The 53rd Sapporo Snow Festival will take place from February 5 through 11. When the festival debuted in 1949, only 14 snow statues were constructed. However, it has grown into an event that attracts two million visitors from around Japan and the world. In recent years, more than 300 snow and ice statues, large and small, have been erected at three sites: Odori, Makomanai, and Susukino. For this year's festival, a historical edifice of the Republic of Korea is under construction at the Odori 8-chome block. This 13.5-meter-high, 18-meter-wide snow creation com-

memorates this year's Korea-Japan FIFA World Cup.

The snow statues require the equivalent of 7,000 five-ton dump trucks of snow. Since the snow must be of good quality and free of dirt, it is hauled from Jozankei and from the environs of Ishikari Port, more than 10 km from downtown. It is fascinating to watch the Japanese Self-Defense Forces and Sapporo residents erect these monumental structures, which can take more than a month to build. At the Odori 11-chome block, 12 teams from overseas regions and 22 local teams com-

posed of foreign residents and international students are carefully crafting snow statues. Some works highlight the distinctiveness of the creators' country.

Construction is in the final phase. If you find some free time for shopping near a festival site, be sure to take a look at these dramatic uses of snow as they near completion.



Desk & Restaurant Hours

Information Desk

8:00 a.m. - 7:00 p.m., 30 Jan. (Wed.)
8:00 a.m. - 5:00 p.m., 31 Jan. (Thu.)

Registration Desk

(Congress Registration for Full-Registrants & Accompanying Persons)

8:00 a.m. - 7:00 p.m., 30 Jan. (Wed.)
8:00 a.m. - 5:00 p.m., 31 Jan. (Thu.)

Registration Desk

(Registration for Accompanying Person's Tours)
8:00 a.m. - 1:00 p.m., 30 Jan. (Wed.)

Registration Desk for Technical Visits

8:00 a.m. - 7:00 p.m., 30 Jan. (Wed.)
8:00 a.m. - 9:20 a.m., 31 Jan. (Thu.)

Testing Room Desk

8:00 a.m. - 6:00 p.m., 30 Jan. (Wed.)
8:00 a.m. - 4:00 p.m., 31 Jan. (Thu.)

Travel Desk (JTB Corp.)

8:00 a.m. - 7:00 p.m., 30 Jan. (Wed.)
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 Café (1F) 10:00 a.m. - 7:00 p.m.
Bowbridge Café (3F) 10:00 a.m. - 6:00 p.m.

Stamp Rally

A stamp rally is being held at Sapporo Dome during the PIARC International Winter Road Congress. Collect all eight stamps located in the Indoor Exhibition Site (arena) and the Outdoor Exhibition Site, and you could win return tickets for two from Air Do, official FIFA World Cup merchandise, and other prizes. Four stamps give you one chance to enter; eight stamps, two chances. Enter and win!

Dates: Jan. 29 ~ 31 (Tue. - Thurs.)

Entry form: Available at the Information Desk in the arena (Indoor Exhibition Site)

Drawing venue: "Secretariat Space," adjacent to the Hokkaido Booth

Prizes: (# of winners)

- 1st Air Do return tickets for two (3)
- 2nd Stadium coat (5)
- 3rd Decorative pin board (10)
- 4th Happi coat (20)
- 5th Keyholder (160)
- 6th Pin (160)
- 7th Admission: Sapporo Dome Observatory (300)

Consolation Prize: Sticker