

# ITS MIDWEST & GCM *Express Lanes*

## ITS MIDWEST

The Intelligent Transportation Society of the Midwest  
A regional chapter of ITS America including the states of  
Illinois, Indiana, Wisconsin



January 2000 Volume 5.1

## ITSMW Semi-Annual Meeting at Chicago Auto Show

On February 15, 2000, ITS Midwest will again hold its semi-annual meeting at the Chicago Auto Show at McCormick Place in Chicago. The meeting will feature updates on ITS projects in the three-state area, the National ITS program, as well as provide opportunities for open discussions on future ITS Midwest activities.

David McNamara from Ford Motor Company will be the guest speaker following the luncheon. He will speak about ITS technologies being developed and deployed at Ford.

Attendees will receive complementary passes to visit the Chicago Auto Show following the



Ford T-bird concept shown at the 1999 Chicago Auto Show.

meeting. For more details, see the announcement on page 3. □

Contact: Judy Benigno, (630) 252-5586,  
jbenigno@anl.gov.

**EXPRESS LANES** is the official newsletter of ITS Midwest and the GCM Priority Corridor. Your comments, suggestions and contributions are welcome.

### ITS Midwest Executive Board:

#### PRESIDENT:

Adrian Tentner, Argonne National Laboratory

#### VICE PRESIDENTS:

Phil DeCabooter, Wisconsin DOT

Jeff Hochmuth, Illinois DOT

Dan Shamo, Indiana DOT

#### TREASURER:

David Zavattero, Chicago Area Transportation Study

#### SECRETARY:

Ron Sonntag, Marquette University

### GCM Executive Committee:

#### CHAIR:

Cristine Klika, Indiana DOT

Kirk Brown, Illinois DOT

Charles Thompson, Wisconsin DOT

### Newsletter:

#### EDITOR-IN-CHIEF:

Tom Ewing, Argonne National Lab



## 2002 ITS World Congress

As previously reported, Chicago has been selected by the ITS World Congress Board of Directors to host the prestigious ITS World Congress in 2002. Chicago competed against Atlanta, New York, and San Francisco for top honors. ITSMW played a key role in the competition and will also be a major player in subsequent organization activities.

ITSMW President Adrian Tentner and Vice President Jeff Hochmuth visited the 1999 ITS World Congress held in Toronto in November 1999 to see first hand this premier global ITS event and meet with World Congress officials. Tentner, who is on the ITS World Congress board, will meet this month in Washington with ITS America officials to begin the planning effort. In February, a meeting is scheduled in Chicago with ITS America and area planners.

The Chicago World Congress is the next congress to be held in North America. The 2000 World Congress will be in Turin, Italy, and Sydney, Australia will host the event in 2001.

Held concurrently with the World Congress is one of the largest ITS exhibitions. It offers exhibitors an ideal platform to reach key ITS decision makers, meet existing customers, and establish new business opportunities.



From left to right, Joe Lam and Colin Rayman of ITS Canada meet Adrian Tentner and Jeff Hochmuth from ITSMW during the Toronto World Congress.

The Chicago World Congress will provide an excellent opportunity to showcase the region's ITS capabilities to a world audience. □

## Inside this issue

- 2 INTERVIEW
- 3 WISCONSIN  
CVO PLANS
- 3 ITSMW MEETING  
REGISTRATION
- 4 ILLINOIS PREPASS
- 4 NEWS
- 5 ITS ARCHITECTURE  
COMPLIANCE
- 5 CALENDAR
- 6 MEMBERSHIP

## An Interview with Cristine Klika, Indiana's New Transportation Commissioner

*With this issue, Express Lanes editor Tom Ewing begins a series of interviews of leaders in government and industry who have an impact on the development and deployment of ITS in our region. Our series begins with an interview of Cristine M. Klika, Commissioner of the Indiana Department of Transportation. She began her career with INDOT in 1988, and held the post of Deputy Commissioner for Planning and Intermodal Transportation for two years before being named INDOT's Commissioner in June of 1999.*

**ITSMW: What kind of commitment is Indiana making to ITS and how does ITS fit into your vision for the future of transportation in Indiana?**

CK: INDOT is very committed to ITS. We have already made considerable headway in ITS in Indiana with three Advanced Traffic Management Systems under development, a statewide Automated Traveler Information System that is truly remarkable, and a number of innovative projects in work zones. We see ITS as a new set of "Tools" that can be applied to remedy serious problems relating to congestion, safety, and air quality. We plan to mainstream ITS in every aspect of our work as we "Move Indiana into the 21st Century".

**ITSMW: What are your expectations for how ITS will benefit Indiana?**

CK: We expect that ITS will provide both short and long term benefits for Indiana. In the short run we hope ITS will help us to keep ahead of the congestion problems caused by the increase in traffic volumes. In the long run, we plan to make ITS tools a mainstay of all our transportation systems. This, we hope, will bring transportation safety and efficiency to a new level.

**ITSMW: Can you give some ex-**

**amples of ITS deployment in your state and how people have benefited?**

CK: We began our ITS initiatives with the Borman Expressway in northwest Indiana. Throughout the development process for the Borman we have planned to integrate the lessons learned elsewhere in the State. This can be seen in the rapid development of the Indianapolis Advanced Traffic Management System that is following closely on the heels of the Borman. Another initiative is underway as a partnership with the State of Kentucky with the TRIMARC program, an Advanced Traffic Management System that serves the Louisville area. Traveler Information Systems have been a major focus for us in Indiana. We now have an operating system for an Automated Traveler Information System that serves the entire state and can support an almost unlimited number of field devices to inform the public. Currently we have about 25 Highway Advisory Radio Stations in service, about 25 Dynamic Message Signs and recently we completed the software to feed traffic information to alphanumeric pagers. Early next year we will have a state of the art website up and running. Two other areas of interest include work zones and commercial vehicle enforcement. Both have been targeted as problem areas that are experiencing an unusually high loss rate. We are aggressively addressing



INDOT

both with some innovative projects.

**ITSMW: What are some of the barriers to deploying ITS more fully and how do you think these barriers can be overcome?**

CK: Probably the biggest barrier to deploying ITS is that of re-engineering the way we do business. All ITS initiatives can be thought of as the manipulation of information, and since information is not the sole property of INDOT, this means that we must seek opportunities to share information with many other agencies. Even within our own organization, ITS must cross boundaries that did not need crossing before. It is hard for people to change the way they operate. It makes them uncomfortable, can create fear, and always stirs up new problems that were not even thought of before. The tremendous benefits of ITS make the efforts worthwhile, but not easy.

In addition, we will always struggle with the issues of limited human and financial resources. They never go away!

**ITSMW: What roles can organizations like ITS Midwest and the GCM Corridor play to help facilitate ITS deployment?**

CK: Both of these organizations can be a big help as we attempt to knock down the communication barriers. These two organizations provide a forum to professionally discuss cross jurisdictional issues, generate innovative new projects, identify funding, and develop effective partnerships between government, private, and academic agencies. These agencies can also become champions for promoting ITS training and ITS career opportunities. As a three-state team we can do a lot more than any one state addressing these issues by itself.

Thanks for the opportunity to present Indiana's ITS perspective to your audience. □

## ITS in Wisconsin's CVO Plans

*The use of intelligent transportation systems (ITS) technologies to improve commercial vehicle operations (CVO) is receiving priority attention in Wisconsin. In the state's ITS/CVO Business Plan completed in August 1998, a variety of goals and objectives for using ITS in CVO enforcement and regulatory activities were outlined.*

One activity identified in the ITS/CVO Business Plan that is moving forward is the implementation of the Commercial Vehicle Information and Systems Network (CVISN). CVISN is an FHWA initiative designed to improve truck safety and operating efficiencies (see sidebar at right).

Wisconsin has identified four CVISN focus areas:

- electronic credentialing
- interfaces with national clearing-houses
- electronic screening
- safety systems, such as linking inspection data to national databases

Several CVISN projects are already in the early planning stages. In addition, funding was approved to hire a CVISN project manager to develop a comprehensive CVISN project plan and high-level design over the next two years. The project manager will help better define the projects and identify the resources needed to implement them.

Another ITS/CVO activity received a big boost when the Wisconsin Legislature approved a temporary surcharge on oversize/overweight permits. The 10 percent surcharge on permits begins January 1, 2000 and runs through June 30, 2003. It is expected to raise an estimated \$1.1 million in revenue. The funds will help offset the state's costs to implement an Automated Oversize/Overweight Permitting and Routing System.

The temporary surcharge has the backing of the motor carrier industry. Once the new system is in place,



Volvo Trucks

carriers will input their origin and destination and the system will automatically determine the appropriate route. The automated system will also allow carriers to apply for and receive permits electronically.

*For more information, please contact Susan Kavulich, WisDOT, 608-261-6305. ○*

## CVISN Initiative

CVISN (Commercial Vehicle Information and Systems Network) is a technical framework for linking information systems and ITS/CVO services.

Through the CVISN initiative, the FHWA is developing a blueprint for a national ITS/CVO architecture and standards, protocols, and unique identifiers to facilitate the electronic communication capabilities that enable most ITS/CVO services. The CVISN model deployment initiative is testing the CVISN architecture and concept in two prototype states and eight pilot states. This initiative includes the development of key multistate information systems and draft standards for electronic data interchange and dedicated short-range communication. Widespread use of these systems and endorsement of these standards are critical to encourage additional investment by the states and motor carriers.

*For more information, visit <http://www.avalon-ais.com/itscvo/cvisn.htm> on the web. ○*

## ITS MIDWEST Semi-Annual Meeting

February 15, 2000

McCormick Place, South Building, Room S102-D  
Chicago, Illinois

### REGISTRATION INFORMATION

The registration fee is \$55 for ITSMW members (\$65 if paid after 2/4/00) and \$75 for non-members (\$85 after 2/4/00). Please call Helen Echols if you need to verify membership (630-252-1617). To have an application FAXed or emailed, call Judy Benigno, 630-252-5586, [jbenigno@anl.gov](mailto:jbenigno@anl.gov).

Registration fee includes continental breakfast, coffee break, lunch, and admission to the Chicago Auto Show.

No hotel arrangements have been made for this meeting. The Hyatt Regency McCormick Place (312-567-1234) is adjacent and connected to the McCormick Place Building.

## PrePass Comes to Illinois

*The Illinois Department of Transportation has been chosen as a test site for PrePass, technology that allows motor carriers to electronically comply with state safety, weight and credential requirements while traveling at highway speed.*

The Williamsville weigh station just north of Springfield on I-55 is the first Illinois facility operating with this state-of-the-art electronic compliance system. In addition, IDOT is working on adding five more sites, three on I-70 and two on I-80.

Illinois became the 16th state to examine the PrePass system, and the Williamsville weigh station is the 60th site at which PrePass is available throughout the country. Currently, there is a two-year contract to evaluate the system.

PrePass, developed by Lockheed-Martin IMS, consists of an on-board, battery-operated transponder that identifies the truck and immediately verifies compliance with state credentialing requirements. In addition to electronic reporting of tax and safety information, all trucks are

weighed with a high-speed weigh-in-motion device on the traveling pavement. The driver will know it is acceptable to bypass an inspection facility when a green light appears on the transponder. A red light means



Participating PrePass trucks are checked by driving past sensors at highway speeds that verify compliance with state weight, safety, and credential requirements.



the vehicle must stop at the facility for inspection.

Only motor carriers with proven safety records qualify to enroll in PrePass and participation is voluntary. Since its inception in 1995, PrePass has enjoyed steadily growing

industry support. Nationally, more than 103,000 vehicles are registered in the PrePass program.

“PrePass rewards motor carriers with a proven record of safety by saving them valuable time and money,” said Illinois Secretary of Transportation Kirk Brown. By increasing the efficiency of weigh stations, PrePass allows more truck safety checks. Trucks verified by the system can drive by weigh stations without stopping. Safety is enhanced by reducing the number of trucks exiting weigh stations which must merge with faster highway traffic.

On average, 330 PrePass-equipped trucks a day are processed by the Williamsville weigh station. Although most of the trucks get a green signal, police may conduct random checks at any time.

PrePass, which was developed through a partnership of government and trucking companies, is available to qualified motor carriers at a nominal fee. There is no charge to the state of Illinois for using the system. □

*For additional information, please contact Dave Johnson, IDOT Operations, at (217) 782-2984.*



## NEWS & ANNOUNCEMENTS

### ITS TO AID TRAFFIC FLOW DURING FREEWAY RESURFACING

In the spring of 2000, motorists along one of the Milwaukee metro area's busiest north-south freeway corridors will experience increased congestion due to the planned rehabilitation of US 45. ITS technologies are being implemented along the parallel WIS 100 to help ease congestion and driver frustration during and after the freeway rehabilitation. Arterial variable message signs and dynamic trailblazer signs will inform en-route drivers of congested areas, allowing drivers the choice of changing routes in a timely fashion. Closed-circuit TVs will be located throughout the corridor to allow police and fire dispatch to view real-time information from the corridor. This will help assess and manage traffic by enhancing interagency communication and coordination between jurisdictions.

In addition, this project will debut southeast Wisconsin's first public information kiosk. Located at an area shopping mall, the kiosk will

enable drivers to view traffic conditions across the region. *For more information, contact: Mike O'Brien, 414-521-5294.*

### I-PASS Express Lanes Open At Army Trail Plaza

As part of efforts to make toll payments faster and more convenient as well as ease congestion at toll plazas, the Illinois State Toll Highway Authority has opened I-PASS Express lanes at the Army Trail Road toll plaza on the North-South Tollway (I-355). I-PASS Express lanes allow I-PASS users to pay tolls while traveling through toll plazas at posted speed limits. I-PASS Express service is already available on the Illinois Tollway system at the Edens Spur toll plaza on I-94 and at the Boughton Road toll plaza on I-355. Additional I-PASS Express lanes will be available in 2000 at the 163rd Street toll plaza on the Tri-State Tollway (I-294) and at the Aurora toll plaza on the East-West Tollway (I-88). I-PASS service is now available at all Chicago area toll plazas and entrance/exit ramps. *For more information, contact Jan Kemp, 630-241-6800.*

## GCM Corridor Compliance with the National ITS Architecture

Since the early 1990's, there has been a significant amount of effort expended at the national level to develop a system architecture for Intelligent Transportation Systems (ITS). The objective has been to define the interfaces and communication requirements for the information flows between physical subsystems in order to provide a framework for ITS design implementation. The National ITS Architecture is the key to providing standards needed to support national and regional interoperability.

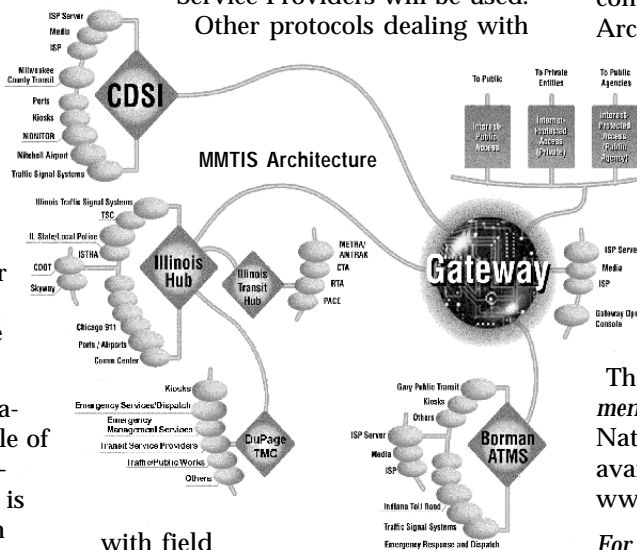
The National Architecture was designed to allow flexibility in design implementation by defining only the required interfaces and their communications. During the time that National ITS Architecture efforts have been underway, ITS design and deployment activities have proceeded in the Gary-Chicago-Milwaukee (GCM) Corridor. It is a requirement that the regional system architecture which provides the framework for integrating the Corridor ITS elements be in conformance with the National ITS Architecture.

The Multi-Modal Traveler Information System (MMTIS) is an example of a Corridor project which is underway. A key element of the MMTIS is the Gateway Traveler Information System.

To demonstrate compliance with the National ITS Architecture, a study was undertaken in which the various layers of the physical architecture and the logical architecture of the MMTIS were detailed and mapped to the National ITS Architecture. Part of this effort included the identification of market packages and subsystems that were applicable to the Corridor. In addition, demonstration of compliance with national standards, as required by the National ITS Architecture, was also investigated.

As part of national efforts, several proposed standards are under development which will directly affect the design and development of the Gateway. Within the GCM

Corridor, recommended protocols for communications with the Traffic Management Center and Information Service Providers will be used. Other protocols dealing with



with field device communications (closed-circuit TV, variable message signs, etc.) have been strongly recommended for adoption by all agencies within the Corridor.

A further effort in demonstrating use of national standards in the Corridor involved the common identification of a point in space. In order for multiple ITS components to be able to locate the same point at the exact same location, it is necessary to either have each component use the same referencing system or to have validated conversion systems between the referencing systems used in each component. The GCM Corridor has formally adopted the use of the national location referencing system called the Location Referencing Messaging Specification.

Based on these efforts, MMTIS compliance with the National ITS Architecture has been demonstrated.

The GCM Corridor is also planning on completing the Corridor wide architecture by the summer of 2000. It is envisioned as a result that future ITS projects in the Corridor will only need to show compliance with these efforts to demonstrate compliance with the National ITS Architecture.

The *National ITS Compliance Document* detailing compliance with the National System Architecture is available at the following web site: [www.gcmpic.ai.uic.edu/piclib.html](http://www.gcmpic.ai.uic.edu/piclib.html).

For more info, contact Jeff Hochmuth, IDOT, 847-705-4800, or Syd Bowcott, Parsons Transportation Group, [sydney\\_bowcott@parsons.com](mailto:sydney_bowcott@parsons.com), 312-930-5147. ○



### Calendar of Events

ITS Midwest Semi-Annual Meeting, February 15, 2000, Chicago Auto Show, McCormick Place, Chicago. Contact: Judy Benigno, (630) 252-5586, [jbenigno@anl.gov](mailto:jbenigno@anl.gov).

ITS America Annual Meeting, May 1-4, 2000, Boston, contact Katrina Mayo, 202-484-4549, [www.itsa.org](http://www.itsa.org).

ITS Midwest Annual Meeting, June 2000, Chicago area, contact: A. Tentner, 630-252-8454.

7th World Congress on ITS, Nov. 6-9, 2000, Turin, Italy, contact: Kip Stacy-Protts, 202-484-4542, [kstacy@itsa.org](mailto:kstacy@itsa.org).

## Membership

Membership in ITS Midwest is open to corporations, companies, government agencies, universities, and other organizations which are either members of ITS America, or operate within the three-state geographical boundary of the ITS Midwest chapter.

Chapters like ITS Midwest play a key role of outreach, education, and support for ITS technical and planning activities. ITS Midwest also provides a forum for planning and support of the GCM Priority Corridor. **Join ITS Midwest today and play a role in shaping our future transportation systems!** For further information about joining and the benefits of membership in ITS Midwest, please contact Philip DeCabooter, membership chair, at (608) 267-0452.

### ITS Midwest Members:

3M  
Alpine Electronics  
Argonne National Laboratory  
Barco America - Visual Systems  
BRW Inc.  
Chicago Area Transportation Study

Chicago Transit Authority  
Chicago DOT  
City of Madison, WI  
City of Milwaukee, WI  
County of Lake, IL  
DuPage Mayors and Managers Conf  
Eaton Corp.  
Edwards & Kelcey  
Etak Inc.  
Federal Highway Administration  
Federal Transit Administration  
Ford Motor Co.  
General Motors  
Hartman Group, Inc.  
Illinois DOT  
Illinois State Toll Highway Authority  
Indiana DOT  
Intellect Network Technologies  
KG Rear Vision  
Landstar Systems Inc.  
Matsushita Information Systems Co.  
Marquette University  
Miami Valley RPC  
Motorola Inc.  
Navistar International Transportation Co.  
NE Indiana Regional Coord. Council  
Northern Telecom  
Northwestern University  
Odetics ITS Division

Oklahoma DOT  
Pace Suburban Bus  
Panasonic  
Parsons Transportation Group, Inc.  
PB Farradyne Inc.  
Positron Industries  
Purdue University  
Raytheon  
Regional Transportation Authority  
Robert Bosch Corp.  
Schafer Corp.  
Schneider National  
Siemens North America  
Steelye, Stevenson, Value & Knecht  
STV Inc.  
The Hoosier Company Inc.  
Traffic & Parking Control Co.  
Traffic Control Corp.  
Transmart Technologies Inc.  
TRW Inc.  
University of Illinois at Chicago  
University of Illinois at Urbana  
Champaign  
University of Wisconsin at Madison  
Weiland Consulting Co.  
Wisconsin DOT

o

### ITS MIDWEST

The Intelligent Transportation Society of the Midwest  
A regional chapter of ITS America including the states of  
Illinois, Indiana, Wisconsin



### How to reach us...

Please address all publication inquiries, comments, suggestions, and contributions to: *Express Lanes* Editor, ITS Midwest, c/o Argonne National Laboratory, 9700 S. Cass Avenue, ITS/208, Argonne, IL 60439. *Express Lanes* may also be reached at:  
w Telephone: 630-252-1617  
w FAX: 630-252-4500  
w email: ITSnews@anl.gov

*Express Lanes* is the newsletter of the Intelligent Transportation Society of the Midwest and the GCM Corridor Coalition.

Contributions of general interest to our readers are encouraged, including news from members, upcoming events, articles on technology/research and

deployment projects, and other ITS-related information.

For further information on GCM corridor activities, contact your local DOT representative or the BRW consulting team.

GCM Corridor C-TIC Home Page:  
<http://www.gcm.travelinfo.org>

**Illinois DOT**  
Jeff Hochmuth 847/705-4800  
Chuck Sikaras 847/705-4800

**Indiana DOT**  
Dan Shamo 317/232-5523

**Wisconsin DOT**  
Phil DeCabooter 608/267-0452

**BRW**  
Jeff Benson 612/373-6444  
Daryl Taavola 612/373-6529

### ITS MIDWEST

c/o Argonne National Laboratory  
9700 S. Cass Ave., B208  
Argonne, IL 60439

Address Correction Requested