



ITS PULSE

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St. Louis' Gateway Guide ITS Program Goes Live

by Tom Miller, Missouri Department of Transportation (MoDOT)

For the first time, motorists in the St. Louis, Missouri, region can visit a fully interactive website that provides construction, maintenance, incident, and traffic information updated every two minutes. In addition to the website, St. Louis residents can plan their morning commutes by viewing live traffic cameras that feed directly from the Gateway Guide Transportation Information Center to local morning television programs.

In early June, MoDOT and its partners, IDOT, BI State Development Agency, and East West Gateway Coordinating Council, unveiled a real-time traffic information website via the Gateway Guide program. A visit to www.gatewayguide.com provides motorists with an interactive, clickable map showing up to 15 different types of roadway conditions, represented by icons. Users can click onto each icon for more information on the

location, time, type of incident, and its impact to traffic.

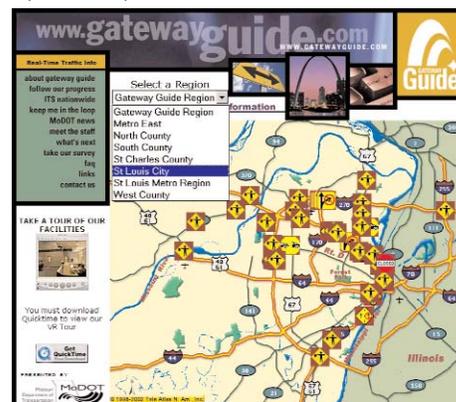
Adding to the trip planning tools, three local television affiliates are broadcasting live Gateway Guide camera feeds during their morning traffic reports. The first feed made its debut on Monday, August 26, 2002. One local affiliate broadcasted live from the Center the first day cameras were made available to the television stations.

"These two components add to the list of tools that motorists may use to plan their commutes from either their home or office. Add these to other information sources including radio traffic reports and dynamic message signs and commuters will have a very comprehensive

network of traffic information in St. Louis," said Tom Ryan, Assistant District Engineer for MoDOT's St. Louis District and former ITS Heartland President.

Gateway Guide's operation is growing every day, with more

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The Gateway Guide Transportation Information website (above) and live traffic cameras (shown below) became available to St. Louis, MO, residents this past June.



Dynamic message signs aid commuters and help provide comprehensive traffic information.



A Message from the ITS Heartland President



Matt Volz
Kansas Department of
Transportation
President, ITS Heartland

I hope you all had a great summer with your friends and families. Things tend to get a little out of the normal routine in the summer, but with fall approaching, so approaches a lot of work for all of us. The Chapter has been busy this summer with the member survey and making plans for the next Annual Meeting, which is to be held in Omaha, Nebraska, March 12-13, 2003, at the DoubleTree Hotel.

Tentative plans for the

Annual Meeting call for presentations on transportation security, local community ITS, incident management, ITS benefits, commercial vehicle operations, work zone ITS, legal issues, red-light enforcement, and public involvement. We are also trying to line up some local tours of ITS applications in Omaha. If you are a vendor and are interested in a booth, we will be sending you sign-up information shortly. Once again, this year we plan to have a vendor presentation session so that you can showcase your company and products to all of the attendees.

Results of the member survey are highlighted in this edition of the ITS Pulse and provided in detail on the ITS Heartland website. Thank you to all of those who responded. This survey will help us in

making the Chapter more responsive to your needs. The most interesting points I took from the survey included:

- The high level of satisfaction with our Annual Meeting and the appreciation for the vendor showcases we introduced last year at the meeting. (We are doing that again this year.)
- The membership supports expansion of the Chapter to other states, like Arkansas and Oklahoma.
- The membership would like more Annual Meeting topics of local interest and separate ITS tracks. (We are supporting that with our program for the meeting in Omaha.)
- Strong support for the continuation of training activities. (We are always looking for new training opportunities sponsored either by the

public or private sector.)

- The Chapter should present awards for outstanding ITS projects in the region. (This idea is currently being worked on. Look for more info on this in the near future.)

The Chapter has nearly completed our liability insurance paperwork for the Annual Meeting. Thanks to Kathy Glenn, our Secretary/Treasurer, and Leslie Fowler, of KDOT's Legal Department, for making sure all of our insurance paperwork was completed in a timely manner.

This organization is only as strong as its membership from the public sector, private sector, and academia. I think we have a very good mix of each, all of whom are working toward the same goal. If you know of others who might be interested, please direct them to the website for information on Chapter membership. Thank you for your ongoing support of the ITS Heartland Chapter of ITS America.

2002 ITS Member Survey Highlights

82% of the survey respondents said ITS Heartland should support regional training opportunities. Look for announcements about upcoming ITS training opportunities in this issue, by e-mail, and on the ITS Heartland website. Some upcoming opportunities include: FTA Transit and Security; Traffic Signal Systems (Wichita, KS); ITS Architecture for Deployment (November 19-20 in Topeka, KS); Iowa Research Conference; University of Kansas ITS Course; and U of Missouri ITS Course. Many of these courses provide professional development hours (PDH).

IF YOU ARE INTERESTED IN
ADVERTISING IN FUTURE
EDITIONS OF ITS PULSE,
CONTACT
STEVE BAHLER AT
SBAHLER@OACONSULTING.COM

RATTS 2003 • August 9 -14

*"What's Really Happening in Rural ITS
and Who's Doing It"*

To be held at the Westin Innisbrook Resort, Palm Harbor, Florida.

Sponsored by: ITS Florida, ITS America, FHWA, and FDOT

Contact: Mike Pietrzyk (mcptsi@tampabay.rr.com) or Rob Gregg (gregg@cutr.usf.edu)

Heartland Treasurer's Report

Kathy Glenn, UNL, MATC, reported that the ITS Heartland account balance is over \$20,000. All receipts were received for the ITS Heartland 2002 meeting.

Standards Delivered by Video Conferencing

by Milo Cress, FHWA, Nebraska

The FHWA video-conferencing network includes two-way audio and visual capability in the Washington, DC, Headquarters, and each Division Office. While available space varies by site (see photo at right), the equipment and technology is state-of-the-art. Presentations of the six-hour, "ITS Standards Overview Course" to over 60 participants in Washington, DC, Nebraska, Iowa, Kansas, Missouri, Pennsylvania, and Indiana offices and presentations of the six-hour, "Center-to-Center ITS Standards Course" to

over 40 in Washington, DC, Nebraska, Iowa, Missouri, Indiana, and Minnesota, were highly successful. Savings in time, travel, and compensation, versus having multiple presentations at various locations, were significant. Milo Cress, FHWA Nebraska Division, identified sites (up to eight plus the headquarter site) and coordinated with site facilitators who scheduled facilities and identified participants at each site. Each site facilitator had an ITS background and was



Video conferencing equipment available at the Nebraska site.

familiar with the standards courses. James Cheeks, ITE, scheduled experts (including himself) to present the course material to a live

audience in Room 4200 of the NASSIF Building in Washington, DC, and sent participant materials to host sites. Betty Warren and Butch

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Wichita Ramp Metering Projects

by Linda Voss, State Traffic Engineer, Kansas Department of Transportation (KDOT)

Several years ago, KDOT's Wichita Metro Engineer brought up the subject of ramp metering on US-54 in Wichita, Kansas. His main concerns were the amount of congestion in peak hours and the number of incidents. The Bureau of Traffic Engineering agreed this was an issue KDOT should consider.

You may have seen ramp meters in Denver, Chicago, Minneapolis, and other large cities. A traffic signal is placed toward the bottom of the ramp and can be set to allow one or two vehicles to proceed on each green light. By controlling the flow of the traffic from the ramp onto the freeway, the overall flow

www.itsheartland.org

and safety on the mainline is improved.

As ramp metering has never been used in Kansas before, it was decided we should investigate the need and feasibility for metering in the Wichita area before moving forward. With the use of state funds, KDOT selected National Engineering Technology (NET) Corporation to review the situation. NET is a consulting firm from Chicago, Illinois, that specializes in ITS and ramp metering and they reviewed US-54 from Oliver Street to Ridge Road.

The consultant recommended KDOT install ramp metering at four ramps in the near

future. For the purpose of this evaluation, LOS D or worse defined a level of congestion that justified ramp metering. According to the Highway Capacity Manual, a volume to capacity (V/C) ratio of 0.92 or greater for a four-lane freeway section equals a LOS of D.

Four ramps were selected based upon ramp volumes, mainline volumes (existing and future LOS), crash history, US-54 speed, and geometrics. Plans are underway and KDOT intends to have the meters operational in 2003 or 2004.

The four ramps that are recommended to receive meters are:

- Washington to Westbound US-54
- Washington to Eastbound US-54
- Seneca to Westbound US-54
- Meridian to Eastbound US-54

Based upon projected traffic growth, all of US-54 eastbound would merit ramp meters within five years and most of the westbound in ten years, due to capacity concerns in the peak hours. A study of other ramps along US-54 is underway to determine the geometric changes that would be required to implement corridor-wide metering.

Center for Transportation Research and Education

by Dennis Kroeger, Center for Transportation Research and Education (CTRE)

The Center for Transportation Research and Education (CTRE) is the focal point for transportation at Iowa State University (ISU), a premier land-grant university with strong core programs in engineering and agriculture. ISU is a preeminent institution in the area of technology transfer and, through CTRE (founded in 1983), provides technical support to industries and public agencies in various fields of science and technology, including transportation.

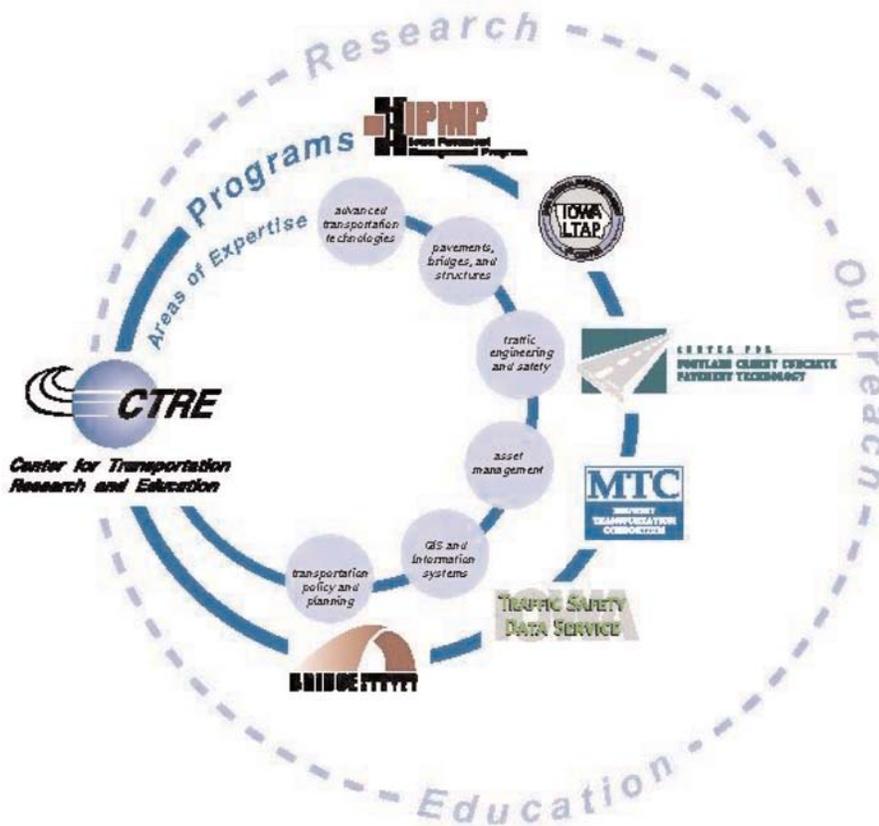
Mission

CTRE's mission is to develop and implement innovative methods, materials, and technologies for improving transportation efficiency, safety, and reliability, while improving the learning environment of students, faculty, and staff in transportation-related fields.

Core Competencies

CTRE has six areas of expertise, each with a specific mission and core competencies. These areas are Advanced Transportation Technology; Pavements, Bridges, and Structures; Traffic Engineering and

Safety; Asset Management GIS; and Information Systems Transportation Policy and Planning.



Advanced Transportation Technology

Technology: A leader in the development and evaluation of field operational tests of Intelligent Transportation Systems (ITS) for commercial vehicle operations (CVO), this division is involved in small projects as well as projects of national and international scope. In CVO, CTRE commonly works through consortia, involving several public and private sector

partners, both within the Midwest and throughout North America. In addition to its work on CVO functions, CTRE has conducted projects involving most ITS functions.

and/or fuel tax payments.

Outreach: At the heart of CTRE's mission is outreach.

CTRE provides popular and award-winning transportation tech-transfer activities on a local, regional, and national level. All together, CTRE sponsors over 100 workshops annually, serving more than 5,000 people from across the state and the nation.

Unique Educational Program

CTRE supports a unique interdisciplinary masters of science degree program in transportation at ISU. CTRE also

Recent projects have run the gamut from developing plans for deployable advance traffic management systems, to evaluating the integration of real-time, demand-responsive scheduling of regional transit services with automatic vehicle location technology, to an operational test of the use of global positioning systems (GPS) and onboard computers to collect truck mileage by states for apportionment of registration fees

supports as many as 100 undergraduate and graduate students, providing them with unique experience in CTRE-funded projects. Students involved in CTRE programs graduate with practical experience in current transportation issues.

Expert Staff

At the core of CTRE is the expertise of its faculty and staff. Staff members are nationally recognized experts in

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NDOR ITS Conference

by Jim McGee and Dottie Shoup, Nebraska Department of Roads (NDOR)

Theme: More than 185 people gathered in Lincoln, Nebraska, to learn how Intelligent Transportation Systems and Operations can improve security, safety, and efficiency of the Nebraska and national highways systems. While NDOR did not announce a theme for the conference, it became clear before the end of the first day that NDOR had carefully selected nationally recognized and local speakers to bring a message about cooperation between agencies and between technologies used by agencies.

Agency Cooperation: Speakers provided an overview of how interagency communication and cooperation were accomplished for the September 11, 2001, terrorist attacks in New York and Washington, DC. Other examples of interagency cooperation featured were traffic management for the 2002 Winter Olympics in Salt Lake City, Utah; traffic management during winter snow

emergencies on I-80 in Wyoming; and traffic management for flash flooding in San Antonio, Texas. NDOR explained how their cooperation with neighboring states led to the activation of dynamic message signs in Iowa, Colorado, and Wyoming, to notify travelers about the I-80 washout near Ogallala, Nebraska. All of the speakers were able to share positive experiences, as well as point to areas where cooperation needs improvement.

Technology

Cooperation: Two methods for agencies to utilize technology in sharing information were contrasted. One method required all cooperating agencies to have identical, or at least compatible, hardware and software. The second method allows agencies to share information between diverse systems at the database level, using extensible markup language (XML) to share data. Speakers presented examples of these methods from Texas, Oregon, and



The importance of cooperation between transportation agencies and technologies was stressed to conference participants.

Nebraska to the audience. While XML has not been widely used, it is showing promise as a significant part of the solution for sharing data between agencies within a state, a region, or from state-to-state.

Nebraska Joint Operations Center (JOC):

Building on the themes of the conference, NDOR shared their vision for a JOC where NDOR, Nebraska State Patrol, Nebraska Emergency Management Agency, and the Nebraska National Guard will share operational facilities and

responsibilities to manage emergencies in Nebraska. The vision also included regional operations centers to manage day-to-day traffic incidents and emergencies. Planning for the JOC and regional centers is based upon the twin pillars of agency cooperation and sharing of data via XML.

Conference

Proceedings: NDOR prepared a summary of the conference speakers, which has been posted along with the speakers' handouts, to the NDOR website at [http://www.nebraskatransportation.org/transportation-tech/conf-july-02/](http://www.nebraskatransportation.org/transportation.org/transportation-tech/conf-july-02/).

St. Louis

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components expected to come on-line throughout 2002, and beyond. Currently, four dynamic message signs are operating in the St. Louis metro area and nine more will be added

in the near future. The system will begin operating in Illinois by late 2002. This will connect both the east and west metro areas' incident response and traveler information

network to make it a truly joint agency effort.

ITS ON THE WWW

Check out Iowa DOT's ITS website at www.iowaontrack.com.

Also, Iowa has a Safety Management System Toolbox on the web at www.iowasms.org/toolbox.htm.

Rural ITS Transit Deployment Plan

by Dennis Kroeger, Center for Transportation Research and Education (CTRE)

The Center for Transportation Research and Education (CTRE) at Iowa State University is supporting the Iowa Department of Transportation's (IDOT) Office of Public Transit in developing a statewide plan for implementing intelligent transportation systems (ITS) technologies in public transit. One goal of the project is to examine how ITS technologies can reduce travel times and improve overall operation of the transportation network. For example, automatic vehicle location systems can increase schedule adherence and reduce passenger waiting time.

Background

Public transit in Iowa is provided by 16 regional transit systems, eight small urban systems, and 11 urban systems providing access to public transportation to all Iowans. Rural transit systems are stretched thin in terms of resources (both dollars and people); yet each

covers several counties and large geographical areas, while providing demand-responsive service. The project's goals are to develop a transit ITS architecture, define and prioritize transit ITS projects, and develop a timeline for



deployment. Phase II of the project is the deployment of communications and ITS applications in various transit agencies identified in the plan. Several transit agencies have implemented some ITS components, and several more are ready to deploy projects soon.

A Step at a Time

In November 2001, IDOT

held an exposition of transit ITS technologies. Transit personnel from across Iowa met with vendors of systems for automatic vehicle location; electronic fare collection using pre-paid cards; automatic passenger counts; and

computer-aided dispatch and scheduling.

Next Steps

The Office of Public Transit hired TranSystems Corporation of Kansas City, Missouri, to determine transit ITS technology needs and to develop a comprehensive business plan for Iowa. The Office of Public Transit and CTRE

worked with TranSystems to assess the technology and communications systems currently in use in Iowa transit systems.

The final step will be developing a plan for implementing new technologies. The team reviewed and prioritized the systems that were deemed needed, cost-effective, and/or practical for Iowa's transit systems.

The implementation and business plans are due in September of 2002. Implementation will occur in Phase II.

For more information about the Iowa transit ITS plan, contact Dennis Kroeger, 515-294-8103, kroeger@iastate.edu; or Kay Thede, IDOT's public transit policy specialist, 515-239-1048, kay.thede@dot.state.ia.us.

More to Come ...

The 2004 Annual Meeting will be in the Kansas City area. Look for future announcements in ITS PULSE and at www.itsheartland.org.

Are Your Dues Due?

Look for a letter from ITS Heartland President, Matt Volz (KDOT), for information on keeping your ITS Heartland dues up to date.

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CTRE

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transportation engineering, planning, safety, systems management and operation, and policy. CTRE's 25-person, full-time core staff excels by combining their knowledge and resources with other University-based organizations, transportation agencies, consulting firms, and industry leaders to

develop and manage robust research teams.

Emphasis on Partnerships

The role of transportation in our world encompasses many disciplines. Sociologists, economists, logisticians, engineers, planners, political scientists, and gerontologists all provide

fresh views and insights to transportation issues. As a University-wide center, CTRE develops robust interdisciplinary teams from colleges and departments across ISU. Currently, CTRE manages projects involving over 20 states, a Canadian province, and Mexico, as well as several private and public organizations.

CTRE has a close partnership arrangement with the IDOT, managing and conducting significant aspects of the department's research and development programs. More information about CTRE may be obtained by visiting www.ctre.iastate.edu.

2002 ITS Member Survey Highlights

ITS ANNUAL MEETING UPDATE

82% of the respondents to the member survey were in favor of the vendor presentations at the annual meeting. Therefore, vendors will have the opportunity to make presentations at the 2003 Annual Meeting in Omaha, Nebraska.

MARKETING FOR FREE?

70% of the survey respondents favored placing links to their organizations from the ITS Heartland website. Members in good standing can place their logo and a link to their website on the ITS Heartland website – for free. Contact Dennis Kroeger for information.

27% of the respondents were from Missouri, the "Show Me State."

According to the survey of members, ITS Heartland is doing a good job of meeting member needs.

Check out the detailed survey results on the ITS Heartland website: www.itsheartland.org.

Standards

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Morgan provided on-site technical support in Room 4200, which was essential to assure success of the video-conference.

The courses have demonstrated that the FHWA video-conferencing network (which can be extended to non-FHWA office sites) is an effective and cost-saving tool for delivery of technical course material throughout the nation. You can request access to these resources by contacting the ITS Coordinator in your local FHWA Division Office.

2003 Annual Meeting

The 2003 Annual Meeting will be held on March 12-14 at the Doubletree Hotel in Omaha, Nebraska.

Agenda planning is underway and the meeting will focus on "ITS and Homeland Security," as well as other timely topics. Hotel cost will be \$66 plus tax, and this price includes parking!

Check future issues of ITS PULSE and www.itsheartland.org for additional information.

FREE MARKETING OPPORTUNITY

If you are a member of ITS Heartland and have an Internet website, please contact Dennis Kroeger (kroeger@iastate.edu) to create a link to your website from the ITS Heartland website. Just send him your URL.

For information about ITS Pulse or to recommend articles for future ITS Pulse editions please contact your state representative:

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