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News of the ITS Heartland

January 2011

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Training

We'll keep you posted of training opportunities as we hear of them.

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Greetings!

We have changed the format of the ITS Pulse, and you will now receive an electronic version.

Nebraska: State Update

By Sarah Tracy, PE, PTOE
Nebraska Department of Roads | Operations Division - ITS Section

NDOR ITS activities include the following:

- **Held ITS Architecture (April '10) and Systems Engineering (July '10) Workshops** in conjunction with FHWA.

- **Coordinating with UNL** to conduct research at the sensor test bed in Omaha.

- **Participating in Traffic Incident Management activities** in the Omaha/Council Bluffs area.

- **Preparing for the Annual Traffic Forum** to be held on October 15 in Omaha.

- **Coordinated ATSAA Incident Traffic Control training** throughout the state; over 400 people were trained.

- **The following Consultant Agreements have recently been started:**

1. Updating the Statewide ITS Architecture. It is anticipated that it will be completed over the next 12 months.
2. Development of a Standard Set of DMS/PDMS Message Sets. It is anticipated it will be completed within the next 12 months.
3. Prepare RFP Specifications for the next version of Nebraska's Highway Condition Reporting System. It is anticipated it will be completed within the next six months.

Iowa: State Update

By Sinclair Stolle, PE
Iowa Department of Transportation

Iowa ITS activities include the following:

- **Mainline Closure Gates** can be operated by garage door openers, at the gate, or remotely. There will be a camera at the gate with real-time images being fed to the public website during "exciting" times. Those installed include: I-35 Corridor: Mason City & Ames and I-29 Corridor: Sioux City (*future*) & Missouri Valley.

- During the Floods of 2010 (mid-August) we **used our portable HAR and new portable cameras** to help advise the public on the flooding impacts to traffic. The portable camera images were also sent to our DOT website for the public to view.

- **Traveler information website enhancements launched** this year:
 - IADOT & Google Traffic
 - NWS weather warnings
 - New streamlined website: <http://lb.511ia.org/ialb/>; Items coming in the next six months (approximately) include: travel times in select metro areas, CAD feeds in select metro areas, statewide ATMS, streaming video on public website, personalized alerts via email or text message, and Twitter feeds.
- **Four "Falling Rock" signs were activated** in the Marquette/McGregor area. These signs are 4'x6' color DMS capable of text or graphics. These are great for urban situations with narrow right of way.
- **Approaching Traffic Warning Systems were installed** in Dyersville and Anamosa.
- **Concluded our feasibility study** for using vehicle probe data in Iowa.

Kansas: State Update

By Barb Blue

Kansas Department of Transportation | Advanced Traveler Information/511 Program

Kansas

- **An enhanced 511 Mobile application** is now available at 511mm.ksdot.org. The site is accessible from iPhones, Droids and Windows Mobile devices. The free application provides users with map, camera and electronic sign views, as well as information concerning road conditions and road way events such as work zones and links to weather. Content is provided for six regions across the state and three metropolitan areas - Kansas City, Topeka/Lawrence and Wichita. Any devices not compatible with the new application will be able to access text information only for road conditions and work zones.
- **Upgraded voice recognition technology on the 511 Phone System** has been added to improve user accuracy when interacting with the system menu by voice commands. The upgraded technology replaces the original technology deployed in 2004.
- **Additional camera views** have been added to KanDrive, www.kandrive.org, KDOT's traveler information portal. Snapshot images from cameras on the Kansas Turnpike authority are now available. These camera images supplement views from 25 KDOT cameras that are updated every two minutes and 8 KDOT cameras located at RWIS sites that are updated every 15 minutes. Approximately 36 additional camera installations are planned.
- **KC Scout** has added an additional 10 cameras on the Kansas side on I-70 and 3 additional DMS along K-7 and K-10.
- **KDOT has partnered with Trafficland** to make video from 25 cameras available to media outlets. Trafficland will sell subscriptions to media outlets that wish to broadcast the video on their daily newscast. Trafficland will distribute KDOT video at a lower cost than individual TV stations could if they purchased equipment and paid telecommunication costs.
- **Fiber Update** - KDOT has partnered with the Kansas Turnpike Authority for fiber between Kansas City and Wichita.
- **Wichita TMC** -Construction began in September, 2010 for the 1st phase

of the Wichita Traffic Management Center project. 20 Daktronics DMS, 28 CCTV cameras, and 36 vehicle detection systems will be installed as part of the project.

- A **media event** was held on Wednesday, November 17, 2010 to announce improvements to KDOT's traveler information services in preparation for the upcoming winter/holiday season. The event was held in conjunction with the Kansas Winter Weather Awareness Day, co-sponsored by the National Weather Service and the Kansas Division of Emergency Management.

Oklahoma: State Update

By Duane Crawford

Oklahoma

Oklahoma ITS has been focused on installing nine additional DMS's along the I-44 Turnpike corridor between OKC and Tulsa. We designed these DMS's to be able to put another DMS on the opposite side of the structure in the future. We expect the second phase of this DMS project to be in 2011.

Another ongoing project has been the relocation of I-40 through downtown Oklahoma City. The first ITS project along the new I-40 Interstate has been awarded and we are excited to get the cameras and DMS's up and running.

We have also been busy working with various state agencies in a joint effort to get a Broadband Stimulus grant for the State of Oklahoma. The State received 74 million to put in 1,000 miles of fiber optic cable in underserved areas of Oklahoma. This will allow Oklahoma ITS to deploy ITS equipment along the roadway where we previously didn't have network infrastructure to do so. The fiber will be going in ODOT right-of-way and ODOT is doing the construction portion of this joint project.

Missouri: State Update

By Melissa Wilbers, PE
Missouri Department of Transportation

Missouri

The Missouri Department of Transportation (MoDOT) expanded its Intelligent Transportation System in 2010 with the installation of the following:

Statewide Rural

- Six Dynamic Message Signs (DMS) for Districts 9 and 10
- 69 Closed Circuit Television (CCTV) camera - statewide
- A next generation communications network - statewide
- 13 Road Weather Information System (RWIS) environmental sensor stations for Districts 8 and 9
- 28 Hot Spots utilized by MoDOT and MSHP personnel - statewide

The overall objectives of these projects are to gather and provide real-time information to the system users and manage non-recurring events such as construction, incidents or weather events. Our future directives will be to improve and measure operational performance of this system.

KC Scout TMC

- Scout is currently working on multiple expansion projects that will double our number of dynamic message sign boards and triple the count of CCTV

cameras by the end of 2011. Over 50 of the new CCTV cameras will actually be cameras from partner agencies that can be fully shared through a networked Federation server.

- Scout is working on a FHWA Weather Integration project where detailed DMS weather warnings are provided on specific routes when critical weather thresholds are reached. A private weather reporting agency will provide the Scout Traffic Management Center with detailed weather readings along segmented corridors throughout the Kansas City region.

- In December, Scout will release a 6 month evaluation report on our I-435 ramp metering pilot project. The one year detailed evaluation report will be ready by the spring of 2011.

- Scout has started the integration of several regional Computer Aided Dispatch (CAD) systems so traffic incidents can be immediately fed to the Scout Traffic Management Center from multiple 911 sources.

St. Louis TMC

- Expanded and activated ITS devices along Rte.370, US40/61, I-170, and I-70

- ITS construction nearly complete on 3 major signalized arterial routes. This includes installation of DMS, CCTV, and a travel time sensor system. This will be the first arterial travel time system in the region, where the DMS's will post travel times for those routes. The first route, Rte. 94, is expected to have travel times by Thanksgiving.

- With the new arterial ITS devices, an upgraded ATMS system will be put into operation before the end of the year. The new system will integrate the existing legacy devices along with a new arterial management system.

- The district successfully managed the busiest work zone season ever by proactive and aggressive management of the work zones. There were several weekends with total interstate closures that resulted in little to no delays to the public.

- The performance study on the Variable Speed Limit system will be completed and published by the end of the year.

Ozarks Traffic TMC

- Expanded the CCTV coverage area from our TMC up to a total of 41 closed circuit traffic cameras around the Springfield region (on both MoDOT and City routes)

- Expanded our TMC signal communications capabilities to a total of 138 City traffic signals and 170 MoDOT traffic signal locations in District 8

- Began a \$1.55 million construction contract for new ATMS Phase I deployment project in partnership with the City of Springfield to install: 27 Closed Circuit TV Cameras; 16 Permanently Mounted Dynamic Message Signs; 31 Vehicle Detection Locations (to obtain traffic counts, vehicle speeds, occupancy data, and vehicle density); and 7-plus miles of new fiber optic cable. This project is scheduled for completion by Spring 2011.

- Started construction on the new Transportation Management Center of the Ozarks in partnership with the City of Springfield. The center

will include a 11,500-square-foot regional TMC facility, a new 1,875-square-foot traffic operations center, 14 MoDOT/City employee offices, and an 845-square-foot War Room to serve as a back-up location for the Greene County Emergency Management Center. The total cost is around \$2.5 million, and the center is scheduled for completion in Spring 2011.

- Completed an update of our Springfield Regional ITS Architecture Plan in partnership with TransCore and the City of Springfield, which included an update of all regional planning partners and their upcoming ITS plans/projects, included a new regional operations plan, and identified new functional requirements for current and future ITS deployments from this region.

Upcoming Events

ITS Heartland's 12th Annual Meeting: March 28 - 30, 2011
Sheraton West Hotel | Des Moines, Iowa

[18th World Congress](#) on ITS: October 16 - 20, 2011
Orlando, Florida

ITS Heartland logo

About Us

The [ITS Heartland Chapter](#) of [ITS America](#) is intended to facilitate information sharing for ITS projects and activities and to showcase ITS applications in five heartland states, Missouri, Iowa, Kansas, Nebraska and Oklahoma. To date, all five State Departments of Transportation, along with major universities in each state and the Federal Highway Administration have been involved in developing the organization.

