

KITS

kansas intelligent transportation systems

Quarterly



The Mid-America Regional Council (MARC) is making significant progress on the region's "Operation Green Light" initiative. Based on recommendations of a feasibility study completed in July 2000, MARC is working with FHWA, KDOT, MoDOT, and local agencies to develop and implement a system to allow coordination of traffic signal timing plans and communication between traffic signal equipment across jurisdictional boundaries.

What this means for motorists is fewer delays during peak congestion times. By improving the flow of vehicles through multiple traffic lights along highly traveled corridors, Operation Green Light should reduce the amount of time vehicles are sitting and waiting. Consultants estimate that traffic signal coordination could reduce delays on high congestion routes by an average of 17 percent. Depending on the length of trip and number of traffic signals along the way, this could mean time savings of up to two to three minutes for someone driving on an Operation Green Light route. When multiplied by the thousands of trips per day on these routes, this could noticeably improve the traffic flow, especially during peak travel periods in the morning and afternoon.

Operation Green Light is meant to be far more than a time saver. By reducing the time large groups of vehicles spend sitting and waiting at intersections, the project also reduces emissions that contribute to the formation of ground level ozone, Kansas City's main air pollutant.

The proposed system will be developed in phases starting with a project to provide communications equipment; replace some traffic signal controllers; provide traffic signal coordination software; and develop and install new traffic signal timing plans on a network of approximately 600 intersections in 17 jurisdictions. MARC has secured federal funding and is seeking additional State and local funds to complete this initial project. Later phases will deploy a dedicated fiber-optic communications system, a traffic operations center and extend system coverage to include approximately 1,500 intersections. The cost estimates are \$9.6 million for phase 1 and \$56.8 million for the entire system.

Information provided by Ron Achelpohl, Manager of Transportation Programs, MARC.

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Summer 2002

Speed Display Trailers Used In Construction Zones

The Topeka Metro Office took delivery on two speed display trailers in 2001. Funding for these units was provided through KDOT's ITS Set-Aside program. It was decided to purchase two different units that utilized different speed display technology. One unit purchased was the Stalker™ built by Applied Concepts, Inc. The second unit is manufactured by 3M.

The Stalker™ unit utilizes a LED board capable of displaying only numbers. The 3M unit is a variable message board capable of displaying alpha-numerics and symbols. Both units use similar radar units to ascertain approaching vehicle speeds, which are displayed. Both units are battery powered with solar recharging capabilities. The Stalker™ unit includes a very loud buzzer to alert those working in the construction zone of an approaching high-speed vehicle.

Jerry Younger, Metro Engineer, notes that they have used both units in reduced speed construction zone type of settings. Both boards have a noticeable effect on slowing traffic as they approach the speed display board. It is common to see brake lights come on as drivers see their speed posted on the board.

The Metro area staff have found that the Stalker™ unit is a bit easier to set up. The controller unit has knobs that are turned to selected speeds. The 3M unit set up is much like a message board, which requires a few more steps. However, the 3M unit provides a lot of flexibility in the message being conveyed to the drivers. Also, the 3M unit can be used as a message board only.

Both units contain software to record and analyze vehicle speed information. With this software it is easy to see the speed distribution of the vehicles passing the speed display unit. Decisions regarding the effectiveness of the unit and the location or message conveyed to the drivers can then be made.

Information provided by Jerry Younger, KDOT Metro Engineer for Topeka.



Stalker™ unit used by Topeka Metro Area Office.

Kansas City Scout Update

The KDOT-MoDOT Freeway Management System, KC Scout, began construction last fall. Construction on the Traffic Operations Center (TOC) proceeded over the winter and was largely completed this spring. The last features of construction on the TOC included carpeting, and installation of glass partitions, consoles and the plasma screens. The contractor will begin installing hardware in the TOC this fall.

Conduit for fiber optic cable has been installed along I-435 in both Kansas and Missouri. Vehicle detection loops will be cut into the pavement beginning July 22nd. This will be night work along I-435. Crews will continue to trench and lay conduit in the downtown loop and in several other smaller segments. Foundations for the overhead changeable message signs (CMS) will be the next major construction in the field. The test phase along I-435 is expected to be operating by this time next year.

Commercial Vehicle Information Systems and Networks (CVISN) Update

Kansas Honored for Online Trucking Services

The Federation of Government Information Processing Council (FGIPC) recently honored the State of Kansas for its Online Trucking Portal and Motor Carrier Permit System. The 2002 FGIPC Intergovernmental Solutions Awards were presented to outstanding information technology innovators at the Management of Change XXII Conference in New Orleans, LA, in early June.

Awards were presented to IT solutions that successfully met all of the following criteria:

Intergovernmental -- provide a service involving two or more levels of government.

Value Added -- new-business process reengineering/automated processes.

Existing Components -- uses existing applications linked for better “seamless” government processes.

Tangible -- must have at least a prototype system that gets results, e.g., provides a new service not presently available.

Implementation -- work has been implemented by March 31, 2002.

Availability -- must be available and accessible regardless of economic or disability status.

Transferable -- can be used by Americans regionally but, most favorably, nationally.

Use of Technology -- innovative or emerging technologies that have efficiently improved or changed a business process.



KDOT Secretary E. Dean Carlson, Jim Hollingsworth, Executive Director of INK and CVISN champion Ken Gudenkauf accept the award on July 15, 2002. INK is the Information Network of Kansas.

KDOT Secretary Dean Carlson is pleased with the state’s recognition.

“Receiving the Intergovernmental Solutions award is particularly gratifying because this portal represents a significant partnering effort among private and public entities. This successful partnership created an electronic gateway for the trucking industry to conduct business in Kansas that is now benefiting all the partners as the portal streamlines administration processes for both government and motor carriers.”

KDOR Secretary Stephen Richards commented about the award. “Truckingks is a leading example of providing government services online. This application was designed in cooperation with the motor carrier industry in Kansas, partnering business with government. It represents the best in capturing and utilizing the flexibility and convenience of private sector-government electronic services.”

The trucking portal located at www.truckingks.org is a multi-agency effort between Information Network of Kansas, Kansas Department of Revenue, Kansas Department of Transportation, Kansas Corporation Commission, and Kansas Motor Carriers Association. This portal serves as a “one-stop-shop” for most trucking permits and information. Current enhancements under development for the portal include the International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) projects utilizing ITS Set-Aside funds.

Information provided by Ken Gudenkauf, KDOT Traffic Engineering. Refer to the ITS Quarterly, Fall 2001 Issue for the description of CVISN projects.

ITS Heartland Chapter Receives National Honor

The prestigious Intelligent Transportation Society of America Chapter of the Year award was presented to ITS Heartland during the Annual Best of ITS awards ceremony April 30 in Long Beach, CA. Matt Volz, KDOT State ITS Engineer and President of ITS Heartland accepted the award.

ITS Heartland Chapter facilitates information sharing for ITS projects and activities and showcases ITS applications in four heartland states – Kansas, Missouri, Iowa, and Nebraska. The multi-state chapter of ITS Heartland was formed in 1999. The four-state chapter attracts membership from public transportation agencies, the private sector, industry vendors, and educational institutions. The current membership is 311 ITS professionals.

Activities of ITS Heartland have been focused in four areas:

- Initiatives resulting in significant savings of time, lives, and money and improving the quality of life
- Awareness and advocacy
- Education and training
- Research

Volz said “Our mission has been to improve the quality of life through advanced transportation technologies and communications for transportation users who live, visit, and invest in America’s Heartland Region.”

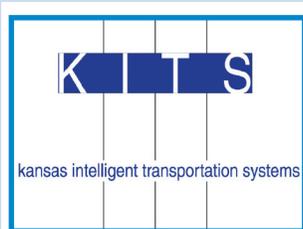
Information provided by Matt Volz, KDOT ITS Unit.



ITS America Chapter of the Year is one of eight national awards.

ITS Calendar

August 13–14	KC Metro Area Emergency Management Workshop, Kansas City
August 13	KC Scout Coordination Meeting, morning, Metro Engineer’s Office
August 13–14	KC Scout Software Review, Tuesday p.m., Wed. a.m., Metro Engineer’s Office
August 21–23	ITS Unit’s Portland Scanning Tour
September 4	ITS Heartland Board Meeting, Omaha
September 5	Rural ITS Toolbox Workshop, St. Joseph, MO
September 10–13	RATTS Conference, Monterey, CA
September 16-19	International HEEP Conference (Highway Engineering Exchange Program), St. Louis



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(785) 296-3387 Fax (785) 296-8168
Email: kareng@ksdot.org

Karen Gilbertson, Editor
ITS Unit, Kansas Department of Transportation
Docking State Office Building
915 SW Harrison Street
Topeka, KS 66612-1568

