



kansas intelligent transportation systems

Implementing technologies that improve the safety and efficiency of the transportation system

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Summer/Fall 2005

Newsletter

KC Scout Begins 24 Hour Operations

Just 18 months after its debut, the Kansas City Scout Traffic Operations Center (TOC) is providing round-the-clock coverage to the metropolitan area as of June 18th, 2005. A joint venture between the Kansas and Missouri departments of transportation, Scout began operations in January of 2004, operating between 5:30 a.m. and 8p.m, Monday through Friday, with a goal of improving traffic flow through the use of sensors, cameras, and message boards.

The departments' experience with 24-hour operations during snow events has helped smooth the transition into constant operation. Nighttime and weekend construction and maintenance operations have increased in both Kansas and Missouri in recent years, so there was a mindset to build on as Scout began providing information to travelers around the clock.

Law Enforcement Helps Out

Other changes have improved Scout's ability to improve the efficiency of the traffic system. Two Kansas Highway Patrol employees work in the TOC as daytime shift operators Monday through Friday, helping with incident management and coordination with law enforcement. Missouri Motorist Assist and emergency response personnel also work with Scout, playing an important part in the system's success.



"We couldn't make it without them," Traffic Operations Engineer Jason Sims said. "All of them serve as our eyes and ears for incident management, because we don't have sensors, cameras and message boards everywhere."

Mutual benefit has prompted partnerships with several agencies and professional organizations in the Kansas City area, Sims noted. Scout staff has created, refined and continued to establish policies and procedures for the system's operation since its January 2004 debut. That includes everything from message creation to coordination with law enforcement and emergency service providers.



"We really had no partners when we started operating the system," Sims said. "Now we partner with law enforcement, emergency responders, the media and other governmental agencies."

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The KC SmartPort ITS Program

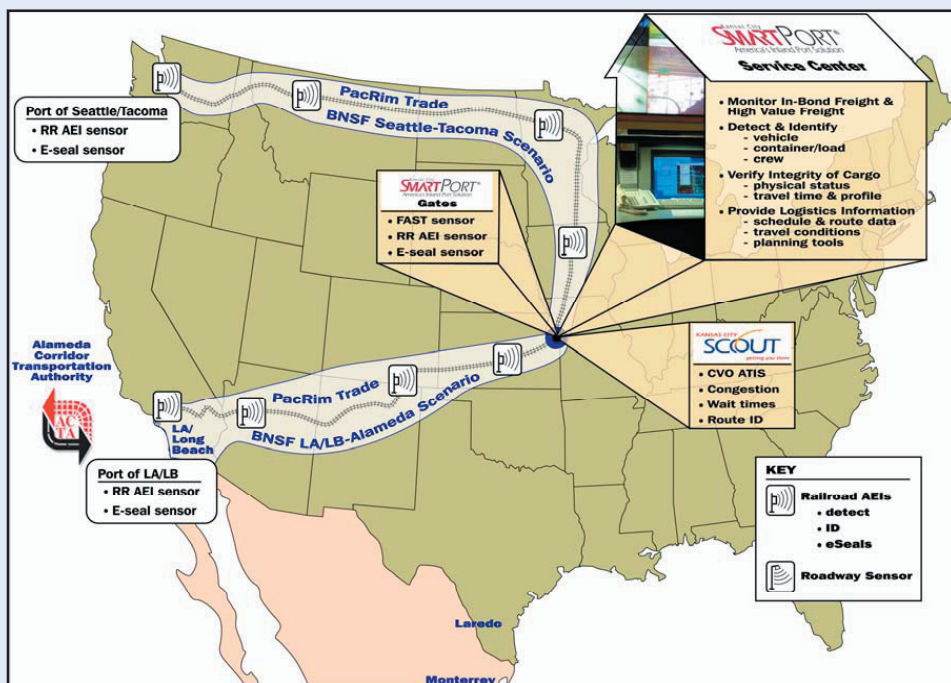
Based on the ever increasing amounts of global trade through our nation's ports, rail lines, roadways and intermodal facilities, and taking into account the new freight security paradigm resulting from the September 11th events, the ability to deploy a secure freight management system has become paramount to the country. In response to this, the Mid-America Regional Council (MARC) and Kansas City SmartPort Inc., have developed an ITS program, with the first element being the "KC SmartPort ITS Integration Project." A system engineering contractor team led by SAIC, and supported by TransCore, is currently developing the SmartPort ITS program.

SmartPort is a not-for profit organization created to increase regional trade by making Kansas City an inland port of entry that will work in concert with traditional border ports of entry as well as ports in Canada and Mexico. The KC SmartPort ITS Integration Project is the first phase of SmartPort's ITS program. Eventually these same ITS technologies will be used in the proposed KC SmartPort inland international port of entry that will provide uninterrupted trade routes with ports in Mexico and Canada, with custom offices potentially being located in Kansas City.

Specific objectives of the KC SmartPort ITS Integration Project include:

- Electronic exchange of data & credentials;
- Positive identification of commercial vehicles, containers/cargo, and drivers/crew;
- Monitoring the security of preprocessed, in-bond, containerized freight;
- Monitoring of the movement of commercial vehicles, drivers/crew, and cargo throughout the KC region;
- Pre-processing of required border crossing credentials;
- Screening of low risk, Safe & Legal cargo, vehicles, and drivers;
- Reduced congestion, enhanced safety, and improved traffic flow leading up to, through, and away from the inland port of entry facilities.

The project will provide a vehicle to define the performance characteristics of proven ITS technologies to support KC SmartPort goals.



SmartPort ITS Phase I Operational Prototype (2006)

ITS technologies that are expected to be associated with the eventual KC SmartPort ITS freight management systems include:

- Electronic container seals (e-seals);
- Automatic Vehicle Identification (AVI) and personnel; identification tags and sensors;
- Secure Electronic Data Interchange (EDI);
- Trade Corridor Operations System;
- Internet based communications network and web site.

This proposed "Secure Freight Management System" will create secure and efficient "trade lanes" for preprocessed, low risk, in-bond, freight transactions without significant infrastructure and civil modifications. This concept embodies the following elements:

- Provides a cost-effective infrastructure that keeps pace with secure, safe, and legal trade and transportation regulations as well as cost effective commerce along North American trade lanes;
- Provides the secure flow of commercial vehicles, drivers, and cargo associated with the processing of preprocessed, low risk, in-bond freight transactions throughout the KC region;
- Supports U.S. homeland security objectives for securing the supply chain into the United States;
- Enhances the current capabilities of trade gateway operators, regulatory agencies, and enforcement agencies associated with the KC SmartPort Secure Freight Management System;
- Evaluates appropriate technologies necessary to develop, deploy, demonstrate, and evaluate an inland Port of Entry.

The KC SmartPort ITS Program

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The KC SmartPort ITS Integration Project is currently being planned for 2006. This "Phase I" of the SmartPort ITS program will develop and test operational prototype components that will provide for expedited and secure movements of cargo by rail from West Coast seaports to Kansas City region intermodal terminals. In support of Phase I, the Burlington Northern Santa Fe (BNSF) railroad and the Alameda Corridor Transportation Authority are currently working with KC SmartPort and the SAIC/TransCore Team to define the 2006 testing program.

Information for this article provided by Chris Gutierrez, KC SmartPort, Inc., Ron Achelpohl, Mid-America Regional Council (MARC), and Mark Jensen, SAIC



Come One, Come All: Visitors Flock to KC Scout TOC

KC Scout's Traffic Operations Center (TOC) has proved a popular destination for professional groups, the news media, students and the general public.

Dianna Kidwell, KC Scout communications coordinator, says a steady stream of groups have visited the TOC during its 18 months of existence.

"We've hosted several groups of engineers, in addition to KDOT personnel who want to know more about the system and their state's involvement in Scout," she said. "Law enforcement, Boy Scouts and Explorers, college students and home-schooled students interested in transportation careers have also visited us."

Legislators and other elected officials have also toured the TOC – and usually ask when Scout will expand to cover more of the metropolitan area.

"We think we've done well to start out covering 75 miles of our busiest roadways, but when people see what we can do, they let us know they're eager for blanket coverage," Kidwell reported.

Need ITS help?

Peer-To-Peer may be the Answer

The Intelligent Transportation Peer-to-Peer Program provides free, short term technical assistance regarding intelligent transportation systems (ITS). Assistance may include telephone consultations, off-site document reviews, presentations, site visits or other appropriate assistance. Many customers, including state DOTs, transit agencies, state motor carrier and related agencies, turnpike and toll way authorities, cities, counties and Metropolitan Planning Organizations (MPOs), receive a mix of these services.

The program assists metropolitan and rural clients to create solutions for a variety of highway, transit, and motor carrier interests. The program offers assistance in virtually all areas of ITS planning, design, deployment and operations, including:

- Planning and Programming
- Institutional Issues
- National Standards & Architecture
- System Design
- Operations and Maintenance
- Procurement/RFPs
- Financial Issues
- Resource Materials
- Education/Awareness/Training
- Partnerships
- Simulation and Modeling
- Telecommunications
- Software/Hardware

Sponsored by the U.S. Department of Transportation (US DOT), the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA) and the Federal Motor Carrier Safety Administration, the program provides assistance through its network of over 120 USDOT-approved ITS professionals. Most of the Program's Peers are public sector ITS practitioners. Barb Blue, KDOT's Advanced Traveler Information (ATIS) Coordinator, is a peer for 511.

"It has been a rewarding experience to participate in the peer-to-peer program—not only to share knowledge and experience from Kansas that will help others, but also to learn from others in the process," Barb said. For additional information, please contact Bob Alva, FHWA Kansas Division ITS Engineer.

Information for this article provided by Barb Blue, KDOT ATIS Coordinator

KC Scout Begins 24 Hour Operations

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We're part of Operation Impact (a law enforcement group) and Operation Green Light (for traffic signal coordination), and we're involved in Homeland Security issues and the Mid-America Regional Council's planning and environmental efforts."

Present and Future Challenges

Ray Webb, Traffic Operations Center manager, noted that equipment maintenance and repair are prompting a look at supplementing Scout's field staff with contract help.

"We operate in a harsh environment for equipment that should be housed inside a building," Webb said. "Lightning and electrical surges can knock out communication, and the lead time to get replacement equipment can also delay repairs. Having some additional help will help us keep the system operating as intended."

Enhanced traveler information goals for KC Scout include providing:

- Estimated travel times when incidents occur
- Web alerts that send automatic updates to those who select the service.



The TOC will continue to serve as a control center during weather-related events, and Sims said that continued improvements to coordination with emergency providers should help reduce delays caused by incidents.

"Our data collection capabilities allow us to record the amount of time needed to clear incidents," Sims said. "We'll use that information to establish goals for clearing incidents in the future."

Information for this article provided by Diana Kidwell, KC Scout Communications Coordinator

WiFi at Rest Stops in Kansas

The information revolution has already brought us KTAG and PrePass. In the coming months KDOT hopes to pilot wireless communications at rest stops. Texas and Iowa were the first states to distribute traveler information and offer internet connectivity through WiFi at rest stops. [WiFi is a term that refers to computer access to the internet through the common IEEE 802.11X (wireless fidelity) communication devices.] In both instances the service was provided to the public at no or little cost to the agency. The vendor will recoup costs through advertising and/or charging users for general purpose internet access.

KDOT hopes to demonstrate WiFi at four or more rest stops this year through a similar agreement with vendors. The initial web pages provide traveler information such as KDOT's KANROAD system as well as weather related information. Subsequent pages provide traveler service information similar to the blue signs on the interstate that display lodging, restaurants, and local attraction information. Travelers also have the option to use general internet connectivity to check email or visit other sites of interest.

The pilot period is intended to demonstrate the service, assess whether the service produces any adverse consequences on rest area operation, and to solicit feedback from the traveling public. A KDOT Steering committee is currently assembling an RFP to go out for bid in the near future.

Information for this article provided by Stan Young, KDOT Advanced Technology Research Engineer

ITS Calendar

August 31, 2005	ITS Set-Aside Committee Final Selection of FY08 projects
September 11 -13, 2005	2005 National Rural ITS Conference (Spokane, WA)
October 4-5, 2005	KDOT Operations Meeting Great Bend, KS
March 14 - 16, 2006	2006 ITS Heartland Annual Meeting (Des Moines, IA)



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