



Summer Edition — 2019



Heartland ITS Pulse

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New this Year in the Heartland!



Mobility on Demand Symposiums

ITS Heartland and the Mobility on Demand Alliance are excited to announce four—1/2 day Mobility on Demand Symposiums to be held throughout the Heartland Region.

Mobility on demand (MOD) is an innovative, user-focused approach which leverages emerging mobility services, integrated transit networks and operations, real-time data, connected travelers, and cooperative Intelligent Transportation Systems (ITS) to allow for a more traveler-centric, transportation system- of-systems approach, providing improved mobility options to all travelers and users of the system in an efficient and safe manner.

The goal of the MOD Symposiums is to bring together private and public sectors to discuss challenges and opportunities of this transformational approach to transportation.

These MOD Symposiums are anticipated to be held in early 2020 in Kansas City, Wichita, Lincoln and Des Moines, so keep an eye out for more information!



Mobility on Demand Alliance



Calendar — Upcoming Events

September 4-5, 2019: ITS Heartland TSMO University, TSMO Train-the-Trainer #2 in Kansas City

September 9, 2019: 2020 Call for Abstracts to be released via e-mail and Twitter

October 21-25, 2019: ITS World Congress in Singapore

January 8, 2020: Deadline for Abstracts for ITS Heartland Annual Meeting

April 27-29, 2020: [2020 ITS Heartland Annual Meeting in Des Moines!](#)

Message from President Kurt Rotering



Having big shoes to fill is an understatement with where I found myself on the stage at the end of the ITS Heartland Annual Meeting in Kansas City.

As I look back on the last year and look to the future, I want to start with thanking Randy Johnson for his fantastic year as President. He undoubtedly moved ITS Heartland forward with an updated website, the Member's Only section, Heartland Connection, and of course the 1st Annual Cornhole Tournament.

Be sure to visit that new website and Member's Only section. There are several helpful how-to videos, images, and white papers. And, if you have anything to contribute, please send it my way.

Looking forward, the 2019-2020 Board is excited and ready to continue this momentum and achieve even greater things for the Chapter. After our first couple meetings as a new board some goals have quickly rose to the top:

- ◆ Celebrate 20 Years of ITS Heartland at the 2020 Annual Meeting, April 27-29 in downtown Des Moines, IA

- ◆ Continue the award-winning SHRP2 TSMO Training
- ◆ Encourage discussion throughout the region with our local partners about mobility on demand (more info to come)
- ◆ And of course, the 2nd Annual Cornhole Tournament!

Thank you in advance to the current board.

If you would like to help us accomplish our goals, the best way is to assist with planning the Annual Meeting in Des Moines. Planning has already commenced, and a listing of the committees and the members involved is shown on the next page.

If you are interested in helping, please reach out to someone on each committee and they will connect you with the team.

Also, keep an eye out for our Call for Abstracts for Des Moines 2020!

And as always, if you have any thoughts, questions or feedback, please contact me at

[krotering@walterpmoore.com](mailto: krotering@walterpmoore.com)!

Recap of ITS America Annual Meeting:

I recently had the opportunity to travel to Washington, D.C. to attend and participate in ITS America's Annual Meeting. Flying into Washington-Reagan Airport and being able to observe the National Mall, Washington Monument and Jefferson Memorial from the air is a great welcome to the City and ITS America 2019. Below are the highlights from my experience after I landed:

- ◆ **State Chapters Meeting** – As President of ITS Heartland I made sure to attend the State Chapters meeting that is held ever Annual Meeting. Board members from chapters throughout the US get together and discuss challenges and successes of their chapter. It's a great place to find new ideas to bring back to the Heartland. The Cornhole tournament and this years Mobility on Demand symposiums are both results of this meeting.
- ◆ **Expo Hall** – One of my favorite parts of any conference is visiting the exhibitors. Being on the forefront of technology, equipment, and software, I find that I learn as much, if not more, just talking my way through an Expo Hall.
- ◆ **TSMO Presentation** – On Tuesday afternoon of the conference, I had the opportunity to be part of a Panel Presentation "Educating Our TSMO orkforce".



Four leading TSMO experts and myself discussed current efforts to educate legacy transportation professionals about TSMO. My portion of the presentation focused on our ITS Heartland's SHRP2 TSMO Train the Trainer program. Matt Volz from the ITS Heartland region was our moderator.

- ◆ **Demonstrations** – ITS America brings out some of the leaders in AV/CV to not only the Expo Hall, but some take the opportunity to demonstrate new and upcoming technologies. This was especially the case in Washington, D.C. where they could demonstrate to not only ITSA, but also elected officials and USDOT employees.

If you ever have the opportunity to attend an ITS America Meeting or a World Congress I would highly recommend it. Experts from around the world come to discuss the current challenges and future opportunities of ITS and technology. Next year, ITS World Congress is in Los Angeles, and it would be great to have a large contingent from the Heartland.

- Kurt Rotering

YOUR VOICE KEEPS OUR MEETINGS RELEVANT!

Mark your calendar for the 2020 ITS Heartland Annual Meeting, April 27-29, in Des Moines, IA! Hosted by the new Hilton and the spacious Iowa Events Center, your 2020 meeting will build on our successes in Kansas City by offering, as requested, even more technical and interactive sessions.

Come explore Iowa's hippest city and see how they have adapted their transportation systems in recent years. Exhibit space will be plentiful and accommodating to our vendors and sponsors.

Your voice keeps our meetings relevant – share your knowledge! Look for the Call for Abstracts to be posted in early September and Vendor Registration to open mid-November. This is your meeting - See you in Des Moines – April 2020!

JOIN US IN DES MOINES! APRIL 27-29, 2020

ITS Heartland 2020 Committees and Committee Leaders

Agenda:

Kurt Rotering, Slade Engstrom

Abstracts:

Henry Brown, Randy Johnson

Keynote Speakers:

Kurt Rotering

Student Competition:

Ron Barnes, Jessica Sherwood, Matt Baker

Technical Tours:

Tim Simodynes, Lindsay Francis, Anthony Gallo

SHRP2 Training:

TBD

Monday PM Sessions:

Kurt Rotering

Social Event:

Tim Simodynes, Lindsay Francis, Anthony Gallo

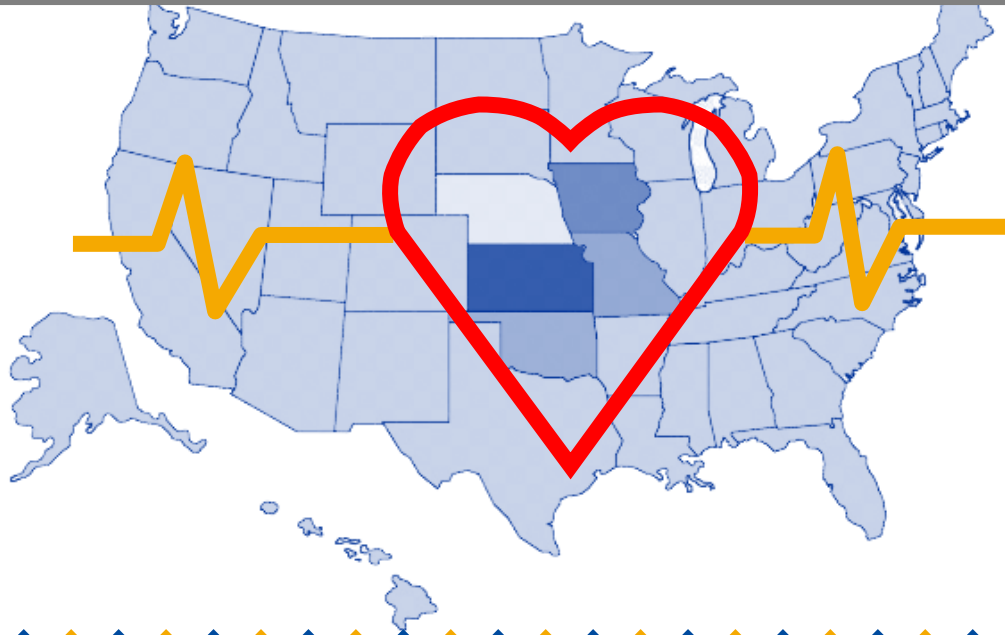
Vendor Reception:

Jamie Gilbert, Matt Baker

Best of ITS:

Alex Wassman, Marty Farris

Summer 2019 State Updates



Nebraska: Matthew Baker

Our Maintenance Decision Support and Automatic Vehicle Locations project won the regional award for Best Use of Technology & Innovation. While our award was in the “small category,” the implementation of the MDSS has been a major effort for the Department that spans decades and touches thousands of NDOT employees.

The initiative is a great representation of NDOT’s dedication to challenging our business practices and improving customer service. Our ATA application highlighted how NDOT leveraged

technology and innovation to help increase efficiency around winter maintenance while also improving the public’s customer experience by providing additional resources to allow educated decisions on travel during adverse weather conditions.

Our Communications Team saw close to 30,000 users log on to Plow Tracker in its first 24 hours with close to 35,000 Twitter impressions meaning we were able to broaden our audience and increase our reach which helps improve our ability to influence public safety.



More about the Award: <https://americatransportationawards.org/2019-projects/2019-washto-projects/nebraska-department-of-transportation-maintenance-decision-support-and-automatic-vehicle-location-project/>



Oklahoma: Marty Farris



Oklahoma’s I-35 RWIS installation project is almost complete. Consisting of 15 new RWIS sites along I-35 spread evenly from the Texas to Kansas borders, all poles have been installed and all equipment has been assembled and prepped off site.

The equipment will be installed at each location over the next few weeks and we hope to have everything fully operational by the end of July.



Kansas: Shari Hilliard

Kansas is anticipating releasing an RFP for replacement of its ATMS system in August of 2019.

As a TIM initiative, KDOT has coordinated with Kansas Highway Patrol and Missouri to add the HAAS digital alerting service to emergency vehicles so that drivers in Kansas City, Wichita, Salina and Topeka can receive digital alerts via the Waze mobile navigation app when they are approaching Kansas Motorist Assist vehicles or Missouri Emergency Response vehicles that are actively providing roadside services. A total of 19 Kansas vehicles and 12 Missouri vehicles are using the technology. HAAS uses GPS and cellular

technologies to precisely track and transmit digital alerts to nearby motorists. This provides drivers with advance warning and time to safely slow down and change lanes in compliance with Kansas' Move Over Law and Missouri's Move Over, Slow Down law.

On the construction side of things, a 30 mile fiber loop was recently completed in the Wichita area, and approximately 20 cameras and 6 DMS will be added to the new fiber this summer.

A rural ITS project in SW Kansas and other key areas is expected to be complete this fall, adding 13 DMS, 15 cameras, and 16 vehicle sensors to the statewide system. KDOT will also be adding 4 rest areas to its 18 existing truck



parking availability (TPIMS) rest area locations this summer.

Over the next year, a camera replacement project is planned for the KC Scout area that will replace approximately 50 cameras and a Wichita project is planned that will add a queue detection warning system, a truck rollover warning system, and a number of cameras and signs to the Wichita metro area.



Missouri: Alex Wassman

The Missouri Department of Transportation began implementation of its TSMO Program and Action Plan in June. The three teams that have been formed to help implement the plan are a mirror of the areas of focus identified in the plan: (1) Traffic Incident Management, (2) Work Zones, and (3) Advancing Technology, Roadway

Operations, and TSMO. The teams are responsible for reviewing the Action Matrices placed in the original plan. These tables identify the actions needed to move TSMO forward in Missouri along with the steps needed to complete the actions. Each step is given a priority, a measure of success, and a responsible party along with an anticipated completion date. All three teams contain a cross-section of employees from various districts, divisions, and pay grades.

MoDOT also recently completed a data sharing feed to enable partners

to receive certain data from the Traveler Information Map. This includes items such as location information for ITS devices, CCTV snapshots, incident and work zone locations, and DMS messages. Prior to the creation of the data feed, MoDOT had to set up each connection to an external system individually. Centralized data distribution reduces the time and effort required to set up each customer.



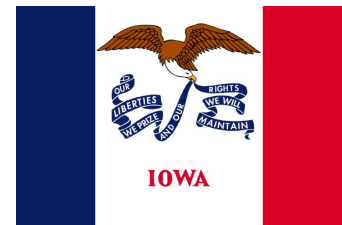
Iowa: Tim Simodynes

Iowa is in our sixth summer of statewide Intelligent Work Zone deployments, with devices currently deployed on 24 projects and all connected to our Statewide TMC and 511 system. We have also used that contract as a resource to deploy cameras to monitor flooded roadways in southwest Iowa.

We have upgraded our network video recording (NVR) system to Genetec and are recording all network-connected cameras for 7 days. The service is increasing in popularity and we are

working on automating our online video request process to reduce the amount of manual effort required to fulfill requests for video.

We are working with Iowa State University and Smart Arrow Board manufacturers to develop a communications protocol so we can automatically know and log whenever an arrow board is used as part of a lane closure on a multi-lane highway. Our current goal is to test some systems this year, implement standards in 2020, and



require smart arrow boards on all Interstate projects in 2021.

Iowa is looking forward to hosting ITS Heartland in Des Moines on April 27-29, 2020.

Member Spotlight: Zach Hanson - SRF Consulting



How did you get into/start in ITS?

My first internship was with Foth in Cedar Rapids, Iowa where I spent a summer inspecting and doing Construction Administration work on the Joint Communications Network (JCN) project. This experience gave me firsthand knowledge of fiber optic networks and signals which led me to my current job with SRF as an ITS/Traffic Engineer. Since starting with SRF, I have grown and learned so much about our industry and the potential we all have to save lives and improve traffic. Every day is a unique adventure – and that’s my favorite part of the job!

What is the best part of working in ITS?

The people! I absolutely love the people I get to work with on a daily basis. I am so fortunate to get to work with

amazing people – clients, other consultants, and especially the folks in our ITS Group at SRF. Everyone I have met in ITS has been absolutely amazing to work and chat with!

What is the most interesting/fascinating thing you’ve done/seen with ITS?

The coolest thing I’ve seen in ITS is the water-curtain over-height warning system in Sydney (<https://www.youtube.com/watch?v=NoTMC-uxJoo>).

A few of my favorite projects that I’ve had the privilege to work on include: a tolling enforcement camera/beacon system to help law enforcement identify lane violators, a traffic metering algorithm to ease congestion as it approaches a major roundabout, and the extensive buildout of the ITS network in Wichita, KS. Each project is fun, unique, and rewarding in its own way!

What would you say to new ITS Heartland Members or those who are considering joining?

Do whatever you can to get involved in this organization. The two years I spent on the board were a lot of fun. You get to help shape the future of the organization and upcoming annual meetings. We are all busy, but this is worth the time!

What is one interesting fact about you?

In addition to Civil Engineering, I also coach high school Cross Country and Track, volunteer with the YMCA, and am working on my Master’s degree! While it can be busy, I enjoy all of it!



SAVE THE DATE

ITS HEARTLAND TSMO UNIVERSITY

TRAIN-THE-TRAINER #2 EVENT

September 4-5, 2019
KSU Innovation Campus
Olathe, KS

Class Hours:
Day 1: 10:00 a.m. - 5:00 p.m.
Day 2: 8:00 a.m. - 2:00 p.m.

PDHs Available

This is the second TSMO Train-the-Trainer seminar ITS Heartland has hosted and all ITS Heartland members are invited to participate in this informative class. We will be presenting information on TSMO strategies, evaluation of where TSMO stands in the ITS Heartland region, practicing presentation skills and discussing what the next steps are in the region. Attendees should be familiar with TSMO strategies and concepts and desire to be advocates for TSMO after they complete this class. (Note, attendance at the first TSMO Train-the-Trainer seminar is not a pre-requisite.)



Discussions will include:

- TSMO Principles
- Your Role in TSMO Advocacy
- Presentation Skills and Learning Principles
- Peer State TSMO Activity
- Moving Forward and Next Steps

Space is limited and we are seeking a mix of public and private sector representation. Consider registering for this free (for ITS Heartland Members) workshop by clicking on the “Register Today” button on ITS Heartland website at ITSHearthland.org/tsmo-training. If you have any questions, contact Amy Lucke at alucke@meetingsnorthwest.com.

Sponsored by: ITS Heartland through a grant from the FHWA

AGAIN the winner is...

ITS Heartland wins ITE awards for TSMO University!

ITS Heartland received two awards for their role in the ever-evolving area of Transportation Systems Management and Operations (TSMO) at this year's ITE International Annual Meeting in Austin, TX!

The first award received was the ITE Transportation Systems Management & Operations Council Project Award. This award seeks to recognize the development and/or implementation of notable projects, programs or organizations that demonstrate the successful use of ITS technologies to improve the efficiency of surface transportation facilities with significant societal mobility.

The second award received was the ITE Transportation Education Council Innovation in Education Award, which seeks to advance innovation in transportation education by recognizing an individual, college/university department, or organization/learning institution that has implemented an innovative technique or program to attract, develop, and/or retain transportation professionals.

TSMO University provides a series of education modules to help "train the trainer" on how to best present and promote TSMO strategies. Each module helps prepare representatives to present and demonstrate the advantages and uses of various TSMO strategies to others within their department or agency. Most modules focus on specific strategies for making the best use of available infrastructure and are available [online](#).



Negil McPherson Jr. from HDR accepting the ITE TSM&O Council Project Award on behalf of ITS Heartland.



Tom Hein from KDOT and Slade Engstrom from TranSystems accepting the ITE Transportation Education Council Innovation in Education Award on behalf of ITS Heartland.

“Our success is all about partnerships and education,” said KC Scout Traffic Center Manager and ITS Heartland Past President Randy Johnson. “Traffic Managers, Civil Engineers, First Responders—we all have the same goal -- keep traffic moving—and TSMO is a key part of that.”

Vendor Product Highlight: How Does KCScout Detect Incidents SO FAST?



TrafficVision's Auto Incident Detection Technology allows KCScouts operators to better detect highway incidents by leveraging their existing camera system. TrafficVisionTMC is an AID-system that alerts the operator to continuously detected abnormal traffic situations. Incidents are automatically detected faster, improving operational efficiency, accelerating assessment, reducing response time, and keeping the highways safer!. Ultimately, *TrafficVisionTMC assists operators in making time-critical decisions based on real time situational detections.*



"Here is a stopped traffic alert the operators got yesterday morning. (This) alerted the operators to a rollover crash that was WB on I-435. So when they turned the camera they saw the rollover.

-Another great reason KC Scout likes your product!"

Recent note to the TrafficVision team from
-**Michael Flory**,
KC Scout KDOT ITS Liaison

Every KCScout highway camera powered by TrafficVision technology has the following features:

Automatic Incident Detection features:

(which includes data stamp, incident snapshot and video snippet for analysis and verification)

- Stopped Vehicles • Debris on highway • Pedestrians on the highway • Slowed Traffic below set thresholds
- Congestion • Wrong Way Drivers (with obvious limitations, ie. camera must stay in fixed position) • Low Visibility

In addition to detecting incidents, KCScouts' cameras are continuously collecting real-time data!

Real-Time Data Collection features:

(surfaced in user interface, written to .csv file, easily accessible and downloadable depending on the processin methodology, as well as integrated with ATMS)

- Vehicle volumes; aggregate or per-lane and per direction depending on camera placement
- Vehicle speeds; directional avg or per-lane and per direction depending on camera placement
- Flow Rate • Lane Occupancy • 4 Length-based Vehicle Classifications
(4 classes Motorcycle/Bike, Car, Med Truck/Bus, Large Truck *with proper camera view and sufficiently available ambient light.*)

To learn more, visit: TrafficVision.com or contact TrafficVision directly Sales@TrafficVision.com



Comments on this edition of the Pulse?

Please send comments to the Editor/Communications Director, Sara Peters:

speters@gbasi.com

Also, be sure to follow @ITSHearthland on Twitter for updates and great articles!