

ITS Midwest NEWSLETTER

Illinois, Indiana, Kentucky and Ohio

www.itsmidwest.org

President's Message

Time is flying by! It is already mid-year and we are in the midst of planning our 2017 Annual Meeting, scheduled for September 28-29, 2017 in Columbus, Ohio. I want to thank the organizing committee for their hard work thus far. The theme for this year's annual meeting is "Connecting Smart Cities" and coincides with the City of Columbus being awarded the Smart Cities Project. Stay tuned to the Newsletter and the www.itsmidwest.org website for more information as we move forward.

I would also like to thank the website committee for their hard work in bring-

ing the content of the website up to date. Take a moment to review the website to see the current information and activities. I encourage all of our membership to check out the website and pass along the ITS Midwest message.

The ITS World Congress 2017—hosted by ITS America in conjunction with ITS Canada and co-organized by ITS Europe and ITS Asia-Pacific—will be held October 29 – November 2, 2017, in Montreal, Quebec Canada. This premier event brings together global leaders in intelligent and transformative transportation to showcase and evaluate the latest innovative concepts, active prototypes, and live systems.

A highlight of the event will be the Smart Cities Pavilion. As a designated section of the Exhibit Hall, the Pavilion will highlight Smart Cities from around the world, continuing the discussion and debate around how policy can advance the future of integrated mobility, how transportation is moving to the center of the Internet of Things (IoT) and how technological solutions and the IoT are changing cities.

ITS America announced that ITS America President and CEO Regina Hopper is leaving at the end of July. Regina leaves ITS America in great shape. Her two years at ITS America are a testament to the vision and determination she brought, and she leaves with a long list of accomplish-

ments. Former ITS America Chairman, David St. Amant, has been named as the interim President and CEO.

ITS America is once again partnering with the U.S. Department of Transportation's ITS Professional Capacity Building (PCB) program to offer training courses to ITS America State Chapters and their membership. ITS America has finalized the training courses being offered. There will be 12 slots available for delivery between July 2017 and June 2018. However, there may be the potential for more slots if the interest merits it. Please contact Carlos Alban at calban@itsa.org for additional information.

INSIDE THIS ISSUE

- 1 President's Message** *Page 1*
- 2 ITS Midwest 2017 Annual Meeting** *Page 2*
- 3 Wisconsin Automated Vehicle Proving Grounds** *Page 3*
- 4 Ohio State Co-founds Smart Belt Coalition to Collaborate on Mobility Solutions** *Page 6*
- 5 Solar Eclipse/ August 21, 2017** *Page 7*
- 6 Member Spotlight - Iteris** *Page 9*



Ken Glassman, President of ITS Midwest

ITS Midwest 2017 Annual Meeting

The ITS Midwest 2017 Annual Meeting will be held on Thursday and Friday, September 28-29, 2017 at the Crowne Plaza Hotel (33 East Nationwide Blvd, Columbus, Ohio – 43215) in downtown Columbus.

“**Connecting Smart Cities**” is the Annual Meeting theme. The focal point of this year’s gathering will be the Columbus Smart Cities initiative.

Our annual meeting program includes:

- Technical sessions on connected and automated vehicles, traffic management and operations, multi-agency collaborations, commercial vehicle operations, safety innovations, incident management, work zone ITS, transit applications, federal updates, and new technologies.
- A Technical tour of the Center for Automotive Research at The Ohio State University will take place on the afternoon of Friday, September 29th following the annual meeting. For details, visit [CAR Technical Tour](#).
- Social event at Brewcadia, an arcade/brewery.

Be sure to take advantage of member discounts by renewing your membership in ITS Midwest. For current information on the 2017 Annual Meeting, be sure to check our website at www.itsmidwest.org.

Meeting Registration

- Member: \$175 early bird, \$225 after 9/2
- Non-Member: \$225 early bird, \$275 after 9/2
- Student (Student ID required): Free (lunch not included), \$27 (lunch included)

Special offer: 20% discount on 2018 ITS

Midwest chapter membership available to non-members registering for the Annual Meeting. Offer not available to past or renewing members.

Note: Early bird registration ends Friday, September 2, 2017. The deadline to register online is September 16, after which only on-site registration is available. The cost of the social event (\$30) is not included in the meeting registration rates listed above. Payment of the social event fee of \$30 is available as an option during meeting registration. Sponsorship and exhibitor opportunities are also available during meeting registration. See below for more information about exhibiting or being a meeting sponsor.

Social Event

Join us for an evening of fun, games, food and craft beer at Brewcadia

ITS Midwest Annual Meeting attendees and guests are welcome to join us for a social event at Brewcadia, an arcade/brewery located right around the corner from the Crowne Plaza. Brewcadia believes in old-school amusement mixed with a downtown culture. They offer 40 craft beers on tap and several of the classic arcade and board games we all love. All attendees must be 21 or over to enter.

Please make your reservations now. Note: The social event is optional and the \$30 fee is not included in the meeting registration.

Details

Time: 6-9 PM

Date: Thursday, September 28

Location: Brewcadia – 467 N High Street, Columbus, Ohio (above Barley’s)

Cost: \$30/person (includes drink tickets and food)

We will meet in the Crowne Plaza lobby

around 5:45 pm. See you there!

Sponsorship

Sponsoring the ITS Midwest Annual Meeting gives you visibility and recognition as a leader committed to advancing ITS. Sponsors gain valuable opportunities to strengthen or build partnerships with a maximum number of participants. Our members have been in the ITS business for many decades and are involved in all facets of transportation planning, development, deployment and research.

In addition to the complimentary registrations noted below, all sponsorship levels allow for one additional meeting registration at a reduced fee of \$75.

Sponsorship benefits vary depending on the package chosen:

- **Diamond: \$2,000** – includes (4) complimentary registrations, your 3 minute company video shown during the meeting breaks (if provided), a full page in the meeting booklet, and company logo displayed at all breaks and lunch
- **Platinum: \$1,500** – includes (3) complimentary registrations, your 1 minute company video shown during meeting breaks (if provided), 1 full page in the meeting booklet, and company logo displayed at all breaks and lunch
- **Gold: \$1,000** – includes (2) complimentary registrations, ½ page in the meeting booklet, and company logo displayed at all breaks and lunch
- **Silver: \$500** – includes (1) complimentary registration, ¼ page in the meeting booklet, and company logo displayed during a specific break

Sponsorship registration is available as an option during online meeting registration (above).

Exhibitor

\$375 – provides display table with power and Wi-Fi in the Exhibitor Hall and includes one complimentary registration and one registration at a reduced rate of \$75. Exhibitor registration is available as an option during online meeting registration. There may be additional charges for power based on the hotel policies.

Hotel Reservations

The 2017 Annual Meeting will be held at the Crowne Plaza Hotel (33 East Nationwide Blvd, Columbus, Ohio – 43215) in downtown Columbus. The venue is located in the city's bustling Arena District in the heart of downtown Columbus.

ITS Midwest has reserved a block of rooms for the evenings of Wednesday, Septem-

ber 27 and Thursday, September 28 at a discounted event rate: \$149/night (single) for a Standard King. Reservations can be made online ([click here](#)) or by calling 1 (877) 834-3613 to get the special rate. When reserving by phone, please provide IATA#: 99801505 and Group Code: ITS

For more information or to book the special hotel rate, visit the venue [reservation website](#). Reservations must be made by September 4, 2017 to get the discounted rate. You are encouraged to book early to ensure availability at the special price.

Call for Abstracts

The ITS Midwest Conference Outreach Committee invites you to submit an abstract for presenting at the Annual Meeting. Abstracts must be submitted online using our submittal form.

<http://www.itsmidwest.org/2017AnnualMeeting/abstracts/>

The annual meeting theme “Connecting Smart Cities” looks forward to a connected environment for mobility, facilitated by intelligent transportation and communications technologies. Please join ITS Midwest in presenting your thoughts and your work to contribute to a shared vision of a connected transportation future.

Submission deadline is August 7, 2017.

Nominations are being accepted for the 2017 Project of the Year. Nominations must be received no later than September 1, 2017.

Nomination instructions are at: <http://www.itsmidwest.org/2017AnnualMeeting/poty/>

WISCONSIN AUTOMATED VEHICLE PROVING GROUNDS

Peter Rafferty, P.E., PTOE, AICP

University of Wisconsin Traffic Operations and Safety (TOPS) Laboratory
and Wisconsin Automated Vehicles Proving Grounds (AVPG)

Automated vehicles (AVs) are reshaping not only the auto industry, but safety and mobility worldwide. Traffic fatalities nationally have increased each of the last two years - a trend not seen in 50 years - and now approaches 40,000 deaths per year. Pedestrian deaths have risen to 15% of this total. With 90+ percent of crashes attributable to human error or inattention, advances in automation have enormous potential to save lives. Automation also improves mobility and efficiency by increasing accessibility and capacity utili-

zation, and allowing for more productive activity while traveling.

Automakers and tech companies, both large corporations and startups, are aggressively leading these advances. We see the [Waymo](#) (Google) cars logging millions of miles. Automated driver assistance features (e.g., lane assist, emergency braking) are now widely available. Other advances include partial automation such as commercially available from Tesla, highly automated minibuses on

fixed routes proliferating around the world (e.g., [Navya](#) and [EasyMile](#)), and AV retrofit packages being worked on by companies like Intel and Baidu. With these deployments come experience and learning, including circumstances where an operator has to quickly retake control or risk a crash.

A fatality in May 2016 is a prominent example, when a Tesla driver in Florida crashed just two minutes after engaging Autopilot and turning his attention else-



where. This is an example of the “messy middle” of intermediate automation, where the driver must pay attention and remain available to immediately take over driving, but automating more driving tasks makes it easier than ever to be distracted.

The industry has standardized on the Society of Automotive Engineers levels of vehicle automation, ranging from 0 (no automation) to 5 (full automation). Through level 2 (partial automation, including Tesla’s Autopilot), the driver is responsible for actively monitoring the driving situation while the vehicle performs limited driving functions. At level 3 (conditional), a human must be available as fallback in case of system error or incapability. At level 4 (high), even the fallback is handled by the system – these are the vehicles that may not have pedals or steering wheels. Level 4 vehicles can operate autonomously in certain situa-

tions, whereas level 5 vehicles operate autonomously in any situation, including adverse weather, congestion, and all roads. We now have level 2 working on clear highways with good pavement marking, and level 4 on fixed routes. Five years from now we will see level 3 and 4 vehicles operating in more diverse conditions, though we are many years away yet from level 5 vehicles.

AVs Nationally and in the Midwest

The U.S. Department of Transportation (USDOT) has been supportive of automation, but the federal role is challenging and continues to evolve, especially for regulation. Automakers especially lament the emerging patchwork of state regulations. Last September, the National Highway Traffic Safety Administration (NHTSA) released the [Federal Automated Vehicles Policy](#) (FAVP). The FAVP lays out four key components: vehicle performance, model state policy, current regulatory tools, and new tools. Those last two provide information on the federal role, including federal motor vehicle safety standards and application to different vehicle types. The Vehicle Performance Guidance for Automated Vehicles section is targeted at level 4+ AVs, or Highly Automated Vehicles (HAVs), introduces the concept of Operational Design Domain (ODD), and

outlines the 15-point safety assessment letter for manufacturers. The Model State Policy section was developed in collaboration with motor vehicle regulators and provides helpful suggestions to states contemplating their own regulatory framework. Some argue the FAVP goes too far, but as non-binding guidance, others argue it is not enough. The future of the FAVP is unclear, and an initial revision is expected later this year.

In the four-state ITS Midwest region, many agencies, universities, and companies are actively engaged in advancing AV research, development, testing, and deployment. Most prominent is the work underway in Ohio, supported by the State of Ohio and the Ohio DOT, with collaboration from The Ohio State University and other stakeholders. The Transportation Research Center (www.trcpg.com) just northwest of Columbus – the Smart City Challenge winner – is a preeminent automotive testing facility that does a great deal of work on AVs with industry, and provides critical support for NHTSA.

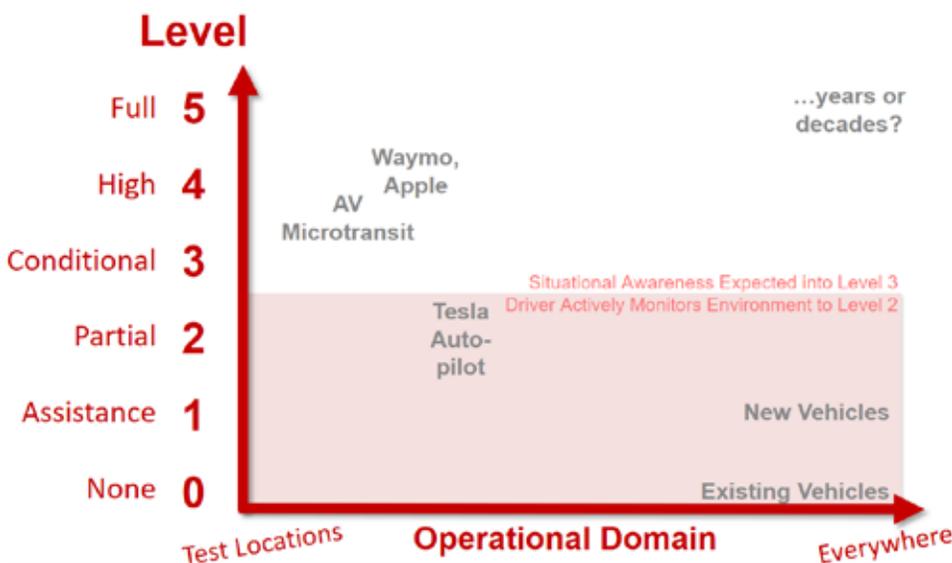
The USDOT Designated Proving Grounds

Last January, the U.S. Department of Transportation designated ten official Automated Vehicle Proving Grounds (AVPGs). Four neighbors of the ITS Midwest area were selected: Iowa City, Pittsburgh, the American Center for Mobility in Michigan, and Wisconsin.

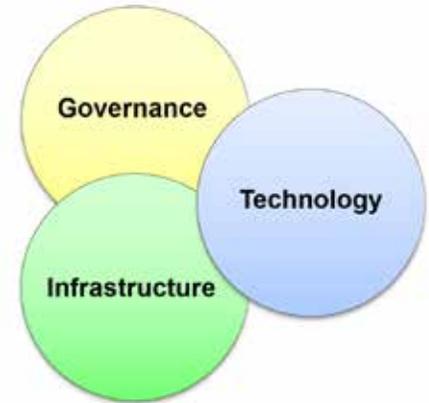
Building on prior work and rapid development, Wisconsin intends to remain at the forefront of these transformative technologies, and the R&D underway contributes to revolutionizing how the world uses transportation. The Wisconsin AV Proving Grounds mission is to provide a path to public road evaluation by contributing to the safe and rapid advancement of automated vehicle development and deployment, and to provide a full suite of test environments, coupled with research, open data, and stakeholder communication.

In addition to the University of Wiscon-

Varying Levels of Automation



USDOT DESIGNATED AV PROVING GROUNDS



Wisconsin AVPG is organized into three program areas:

- Technology: vehicles, sensors, hardware, software, and test environments, including simulation
- Infrastructure: connected data, base-mapping, exchange protocols, interactions
- Governance: policy, regulations, liability, enforcement, standards, privacy, acceptance, certification

sin-Madison, our team includes existing test track owners and industry partners, bringing together diverse technical expertise in evaluation and assessment; mechanical, electrical, systems, and transportation engineering; robotics, hardware, computer science, and big data; sensing systems and high resolution basemapping; and simulation and modeling. The Wisconsin AVPG is unique among the designees in its ability to assess all of NHTSA's 15-point safety assessment, including crash testing, human interfaces, and cybersecurity. Without key partners like [MGA Research](#) (whose private, secure test facility is pictured here), [Road America](#), City of Madison, and [Mandli/Roadview](#), we would not have the USDOT designation or the growing momentum.

cludes the Great Lakes Transportation Enterprise Institute ([GLTEI.org](#)), which since 2009 has supported transportation innovation in our megaregion through government-industry-university collaboration and provides a flexible nonprofit umbrella for the proving grounds. Under an executive committee are the activities of the director and secretariat, and efforts are advised by a joint program steering committee and a government advisory board. Depending on the nature of the work, activity may occur at any one or more of the physical facilities, or in a simulated environment.

AV R&D is complex and multidisciplinary. While Michigan focuses on automotive aspects and Silicon Valley on software and AI, there are many other aspects and edge cases to tackle. The activity of the

Underlying these program areas are functional work packages. For example, highway freight intersects with the technology program, largely led by industry partners working with the proving grounds; the infrastructure program through connected data and interactions with traffic operations; and the governance program regarding necessary regulatory changes. Public acceptance necessarily includes the evaluation of technologies for safety, smooth interaction with infrastructure, and policy implications for such topics as

The structure of the Wisconsin AVPG in-



shared mobility and equity gains.

Although AV development was underway previously, the USDOT designation in January has catalyzed activity across many disciplines. The Wisconsin team is thrilled to be working at the forefront of

this transportation transformation, navigating the path to public road evaluation, and knowing the transition is just beginning.

See you at the ITS Midwest [Annual Meeting](#) in Columbus!

Visit WiscAV.org or contact us at Feedback@WiscAV.org

Ohio State Co-founds Smart Belt Coalition to Collaborate on Mobility Solutions

Matt Schutte



The Ohio State University has teamed up with academic institutions and transportation agencies in Ohio, Michigan and Pennsylvania on connected and automated vehicle initiatives.

The Smart Belt Coalition (SBC) brings together leaders to support vehicle technology research, testing, policy, funding pursuits and deployment, as well as to share data and provide unique opportunities for private-sector testers.

While coalition membership may expand in the future, other participating agencies and universities include: the Ohio Turnpike and Infrastructure Commission; [Transportation Research Center](#) in East Liberty, Ohio; Pennsylvania's Department of Transportation and Turnpike Commission; University of Michigan; and the Michigan Department of Transportation.

"The Smart Belt Coalition allows the core competencies of each outstanding organization to be utilized and enhanced," said Carla Bailo, Ohio State's assistant vice president for mobility research and business development. "We will lead smart mobility in academia and prepare our students for future endeavors. Further, a multi-state initiative gives us additional

leverage in terms of project size and research dollars toward making our roadways safe and secure for all future modes of transportation."

With similar climates, commercial truck traffic and active work on these technologies in the participating states, the coalition is a resource for transportation stakeholders and the private sector alike. The coalition has developed a strategic plan, which focuses on:

- Connected and automated applications in work zones, including uniform work-zone scenarios offering consistency for testers as well as technologies offering better information to motorists.
- Commercial freight opportunities in testing, including platooning (connecting more than one vehicle) and potential coordination on interstates.
- Incident management applications providing better information to and infrastructure for emergency responders and other agencies.

Most recently the coalition has applied for their first grant – Advanced Transportation and Congestion Management Technologies Deployment for work zone management IT system deployment.

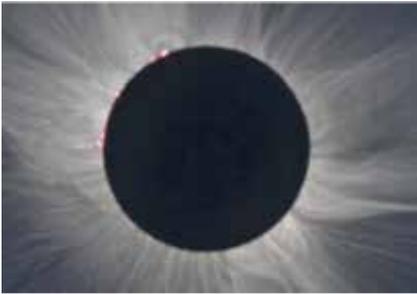
"We want to be the first coalition to actively create an IT system that will be

common among three states and serve as a benchmark for others while creating a standard way for the nation," said Bailo.

This collaboration is the latest example of Ohio State's growing influence and expertise in the smart mobility field. This past summer, university resources and capabilities helped Columbus [win the U.S. Department of Transportation's Smart City competition](#). In January of 2017, Ohio State was designated a Beyond Traffic Innovation Center by former U.S. Secretary of Transportation Anthony Foxx.

Solar Eclipse | August 21, 2017

ITS Midwest Staff



A total eclipse of the sun will be experienced by States across the nation on August 21, 2017. The path of totality will start at Oregon's western border and move through Idaho, Montana, Wyoming, Nebraska, Iowa, Kansas, Missouri, Illinois, Kentucky, Tennessee, North Carolina, Georgia, and finally exit from the United States through South Carolina. It's estimated that 47 million people live within 100 miles of the path of the total solar eclipse.

For about two and a half minutes in the path of totality, day will turn to night. The duration at any given location will be about 3 hours from the start of the partial eclipse (the point at which the moon first begins to obscure the sun) to the end (where it leaves the sun completely).

The Federal Highway Administration (FHWA) has developed a website (<https://ops.fhwa.dot.gov/publications/fhwa-hop16085/>) that includes maps, information, and links to other sites regarding the potential impacts of the solar eclipse event. The FHWA points out that approximately 200 million people (a little less than 2/3 of the nation's population) live within a day's drive of the path of this total eclipse, and there are many festivals and special events planned across the country associated with the eclipse event. The FHWA suggests states should:

- **Undertake** advanced planning for increased local travel demand from



Total solar eclipse path on August 21, 2017.

Source: National Aeronautics and Space Administration.

<http://eclipse.gsfc.nasa.gov/SEmono/TSE2017/TSE2017.html>

people jockeying to get to the line of maximum totality.

- **Develop** partnerships with WAZE (or other user-based app's) to obtain real-time information to identify rural areas where any congestion and closures might be unexpected.
- **Consider** this event in the DOT's construction and maintenance planning. The distraction that the solar eclipse creates may signify it's not a good day to schedule work zones and detours.
- **Create** an events schedule that reflects that travelers should be at their observation location a minimum of a couple hours before totality. The role of State and local DOTs may include instituting roadblocks or other measures to keep people from making illegal turns as they drive around looking for "the perfect spot" as eclipse totality nears.
- **Incorporate** traveler behavior into

DOT plans. In addition to individual travelers, the eclipse is likely to draw numerous groups including schools, enthusiast communities, and other entities with varying capabilities for advance planning and organization.

The FHWA points out that arrivals will be somewhat paced; departures will be more compressed as there is no reason to remain after the period of totality has passed.

The American Association of State Highway Transportation Officials (AASHTO) TransComm Task force has been established for the eclipse event. The task force includes fourteen states, and has worked to coordinate efforts, develop key public safety messages, and work with meteorologists and other media to share best practices.

The National Operations Center of Excellence (NOCoE) has prepared a [2017 Total Solar Eclipse Webinar](http://transportationops.org/tools/solar-eclipse-we) (<http://transportationops.org/tools/solar-eclipse-we>

[binar-preparing-august-21-2017-webinar-materials](#)) which provides an overview of the eclipse and its impact on traffic operations. One of the key items of information related to transportation impacts is that the location and amount of cloud cover will likely cause viewers to relocate and move along the path of totality to locations with less cloud cover on the morning of the event. A July 27 webinar, [Solar Eclipse Planning and Preparation One Month Out: Communications, Emergency Management, and Travel Estimates](#) will also be available on their site. The NOCoE site also contains operations related information and links to other eclipse resources.

Illinois

It's estimated that there will be between 100,000 and 380,000 visitors to the eclipse viewing areas in Illinois. Among the heaviest traveled corridors are anticipated to be Interstate 57, U.S. 51, and the Illinois 13 corridor. The Illinois Department of Transportation (IDOT) has established a Solar Eclipse webpage (<http://www.idot.illinois.gov/home/solar-eclipse>) which provides eclipse information and links to eclipse viewing and related websites. IDOT has been coordinating with other agencies on the state and local levels throughout the spring and summer to make sure the eclipse weekend and viewing events run as smoothly as possible.

IDOT's strategies for addressing transportation concerns will include increased Public Service Announcements, use of Dynamic Message Signs (DMS), increase in the IDOT Minutemen motorist assistance patrols, and increased attention to the permitting of movement of oversize truck loads. IDOT will eliminate a majority of its construction lane closures in anticipated eclipse travel paths and viewing areas from 5 a.m. Friday, August 18, to 6 p.m. Tuesday, August 22.

IDOT will closely coordinate with State and local law enforcement, natural resource agencies, emergency manage-

ment agencies, tow truck operations, and county highway officials. IDOT staff will be ready and available if they are needed to assist with traffic detours, communicating travel information and more. The following graphic includes solar eclipse travel tips.

Southern Illinois University (SIU) will be near the point of greatest duration for the eclipse, which is located a few miles south of the City of Carbondale. This region in southern Illinois is not only in the path of the 2017 eclipse, but also the 2024 eclipse, making it a unique location for being able to perform observations of both eclipses from the same location.

Carbondale and SIU have a large number special events associated with the eclipse. The city has provided shuttle service and shuttle parking locations to ease travel within the city during the eclipse weekend, including shuttle service available from City Hall to Southern Illinois University.

Kentucky

The eclipse is expected to bring up to a half million visitors to Kentucky. Interstates I-24 and I-69, as well as the Pennyroyal Parkway and the U.S. 68/Kentucky 80 Corridor, is expected to be especially congested before, during and after the eclipse. The state and local agencies are preparing for a massive influx of visitors during the total solar eclipse. Kentucky Transportation Cabinet officials offer the following suggestions for businesses:

- Consider early and overnight delivery of critical supplies due to expected daytime traffic snarls.
- Consider increasing inventory of basic items with temporary storage space prior to the eclipse.
- Prepare for congestion and traffic jams.
- Consider flex work schedules to avoid expected difficult travel conditions.



IDOT Solar Eclipse Travel Tips

- Encourage employees to have a full tank of gas prior to the time visitors begin to arrive in the area.

The Kentucky Transportation Cabinet District 2 engineers have also offered traffic control suggestions to several of the eclipse event venues across the region in an effort to minimize potential traffic snarls.

Hopkinsville, Kentucky is located near the point of greatest eclipse. It is listed among the top 10 eclipse viewing sites along the path, and the city expects about 100,000 visitors during the event. Kentucky Transportation Cabinet traffic engineers have trained Hopkinsville police to operate traffic signal controllers manually so officers don't have to stand in the middle of intersections to direct traffic. Event preparations by Hopkinsville include the use of digital signage to assist in direction of traffic, and collaborations with local radio stations to provide traffic updates. Schools will be closed for the day of the eclipse, hospitals are preparing for additional staffing, surgeries are not being scheduled to allow greater emergency room staffing, and first aid stations will be set up throughout the community.

Missouri

Estimates for attendance in Missouri are estimated to range between 500,000 to 1,200,000 visitors for the event. A multi-agency effort led by the Missouri State Emergency Management Agency (SEMA) is coordinating to prepare for the event. Strategies include increased motorist assist programs, increased staffing

in call centers, closing of rest areas when full, and limiting construction activities in critical work zones through the day before and after the event. Missouri's ITS efforts will include fixed and portable DMS messaging and social media messaging. Their website for the eclipse is www.mo-dot.org/eclipse.

In closing, the August 21, 2017 solar

eclipse will be a learning experience for all of us in the ITS community. Lessons learned from this eclipse can be applied to the next total solar eclipse which will be on April 8, 2024, which will include the states of Texas, Arkansas, Missouri, Kentucky, Indiana, Illinois, Ohio, Michigan, Pennsylvania, New York, Vermont, New Hampshire, and Maine.

Member Spotlight – Iteris

Keeping Commerce Moving Efficiently – Iteris' CVO Software Suite is becoming the Choice of Innovative Technology Deployment (ITD) and Enforcement Inspections Nationwide



Iteris Transportation Informatics solutions go beyond sensor detection systems, and mobility and ITS consulting, the firm also provides premier Commercial Vehicle Operations (CVO) services and software to 47 states. The efficient and safe movement of goods through the transportation network is instrumental to the economic vitality of the US, and Iteris' CVO solutions provide a variety of inspection and safety compliance support to Departments of Transportation and enforcement agencies.



Iteris' Commercial Vehicle Information Exchange Window (CVIEWPlus™) is the flagship product of the firm's CVO compliance platform. The software is certified by the Federal Motor Carrier Safety Administration (FMCSA) and currently has 55% of the available market share. CVIEWPlus is the base for compliance and safety enforcement, providing a one-stop shop for users to search multiple databases without multiple logins. States

subscribing to Iteris CVIEWPlus have instant access to each other's International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) data, before it is sent to the Safety and Fitness Electronics Record (SAFER) system, which ensures real-time updates.

Top three reasons customers choose Iteris' CVIEWPlus:

1. One-stop-shop – no need to login to four or more different databases; Iteris' platform ingests all data
2. Immediate pass/fail/warn indicators when entering vehicle data. Indicators are customized by state's logic
3. 24/7 customer service



Inspect™ is a full-featured flexible software for commercial vehicle inspectors that is deployed by 11 states, with three additional states in trial periods. Conversion rates from trial to purchase have been 100%.

Inspect allows commercial vehicle inspectors to submit full inspection reports for any inspection level to SAFER, reducing the inspection time by up to 50%. In 2016, more than 655,000 inspections were completed by 3,032 users using

Inspect software. The software is proven to assist states in meeting or maintaining CORE Commercial Vehicle Information Systems and Networks (CVISN) or ITD compliance as well as increasing the accuracy of registration violations, thus reducing court costs for states.

Inspect is available as a client application and also within Iteris' CVIEWPlus web applications. The online version allows an inspection to be auto-populated with the most recent vehicle carrier search. Unique to Inspect is how it stores inspections based on user credentials, rather than the computer the inspection is completed on. This key feature provides real-time inspection data completed from anywhere nationwide. Inspect is also approved by FMCSA.



CheckPoint™ is the firm's screening software that quickly identifies, sorts and screens commercial motor vehicles for bypass or enforcement action. CheckPoint is a web-based interface that provides integration of federal and state carrier data, weigh-in-motion (WIM), license plate reader (LPR), optical character recognition (OCR) camera hardware, and algorithms to provide a simple interface for verifying the screening of

commercial vehicles and motor carriers. The software can be configured for both fixed facility (Ports) and virtual weigh stations. CheckPoint software quickly processes and returns a pass, fail, or warn decision for the enforcement officer.

CheckPoint was initially developed for the Commonwealth of Kentucky as an efficient solution to automate truck screening. Kentucky operates 14 weigh stations statewide that were inundated with nearly 3.5 million commercial vehicles. Weigh station enforcement staff could only conduct 40,000 inspections, or only 1% of commercial vehicles that passed through the weigh stations. Inspecting fewer trucks jeopardized the public with more unsafe trucks on the roadways, and a decrease in revenue for Kentucky through noncompliant motor carriers avoiding payment of required fees and taxes. After successful deployment of the CheckPoint software at all 14 Kentucky weigh stations, the facilities reported thousands of additional observations within just a few months.

CheckPoint is another part of a suite of commercial vehicle operations software, developed and maintained by Iteris, to help efficiently enforce commercial vehi-



cle safety and compliance. CheckPoint's e-screening application integrates the same pass/fail tests as Iteris' CVIEWPlus and Inspect software to assist in improving operations at fixed and virtual weigh stations.

Iteris CVO software provides user friendly dashboards and easy-to-read diagnostics for efficient commercial vehicle compli-

ance, measurement and management, while providing actionable information to safely optimize inspector time and carrier mobility.

Latest Member Roster

Member Organizations:

AECOM
 Argonne National Labs
 AutoBase, Inc.
 Carrier & Gable, Inc.
 CDM Smith
 CH2M HILL
 CHA Consulting
 City of Chicago
 CohuHD
 Daktronics, Inc.
 Federal Highway Administration
 G4S Secure Integration
 Global Traffic Technologies, LLC
 HNTB Corporation
 Illinois Department of Transportation
 Illinois Tollway
 INRIX
 Iron Mountain Systems, Inc.
 Iteris, Inc.
 ITRCC

J.A. Watts, Inc.
 Jacobs Engineering Group, Inc.
 Kimley-Horn and Associates,
 Lake County Division of Transportation
 Mid-West Truckers Association
 Northrop Grumman
 Pace Suburban Bus Service
 Parsons
 Q-Free Open Roads Consulting
 SDI
 SES America
 Swarco Traffic Americas, Inc.
 TEC Engineering, Inc.
 The Ohio Department of Transportation
 TMS Engineers
 Total Traffic & Weather Network
 TrafficCast International, Inc
 TranSmart Technologies
 University of Illinois at Chicago
 University of Kentucky
 Ygomi, LLC

Individual Members:

Christos Achillides
 Siva Ayyadurai
 Ray Benekohal
 Chris Carson
 Darryl Dawson
 Kim Hull
 Luis Galimberti
 Eric Gannaway
 James Gilbert
 Brent Isenburg
 Mark Newland
 Brian Plum
 Roman Prikhodko
 Steve Reddington
 Brian Scifers
 Charles Sikaras
 Douglas Smith
 Thomas Szabo
 Mark Walker
 David Zattero

Officers:

President:
Kenneth Glassman - Jacobs Engineering

Immediate Past President:
David Zattero

Vice President (Illinois):
Justin Potts - IDOT

Vice President (Indiana):
Dan Shamo - AECOM

Vice President (Kentucky):
*Jennifer Walton –
 Kentucky Transportation Center
 (University of Kentucky)*

Vice President (Ohio):
Ed Williams - TEC Engineering

Secretary/President-Elect:
Matt Letourneau - AECOM

Treasurer:
Bini William – Parsons

Directors:

Illinois
*Don Schaefer – Midwest Truckers
 Assn.
 Kevin Price - Illinois DOT*

Indiana
*Ryan Elliott - AECOM
 Dave Henkel - CHA Consulting*

Kentucky
*William McLemore - Northrop
 Grumman
 Todd Hood - NGC*

Ohio
*Sara Senger – TEC Engineering
 George Saylor - AECOM*

Staff and Editors:

Administrative Staff:
Shawna Ulicne

Editors:
*Heng Wei, Ph.D., P.E.
 Professor
 University of Cincinnati
 heng.wei@uc.edu*

*Zhuo Yao, Ph.D.
 University of Cincinnati
 yaozo@mail.uc.edu*