CREATING ITS IMPLEMENTATION SOLUTIONS FOR ALL COMMUNITIES

2018 National Rural ITS and ITS Arizona Annual Conference + Exhibit

October 21-24, 2018 | We-Ko-Pa Conference Center | Fort McDowell, AZ

NRITS National Rural Intelligent Transportation Systems Conference + Exhibit

ITS ARIZONA 25TH ANNIVERSARY Intelligent Transportation Society of Arizona

Onsite Program

Meeting support services provided by the Institute of Transportation Engineers.

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HOURS

Registration Hours

The Registration Desk is located in the Wassaja Foyer.

Sunday, October 21	7:00 a.m. – 6:00 p.m.
Monday, October 22	7:30 a.m. – 5:00 p.m.
Tuesday, October 23	7:30 a.m. – 5:00 p.m.
Wednesday, October 24	7:30 a.m. – 10:00 a.m.

Exhibit Hall Hours

The Exhibit Hall is located in the Wassaja Ballroom.

Sunday, October 21

7:00 a.m. – 4:00 p.m.	Exhibit Hall Set Up (Exhibitors Only)
6:00 p.m. – 7:30 p.m.	Welcome Reception in Exhibit Hall

Monday, October 22

7:30 a.m. – 8:30 a.m.	Continental Breakfast in Exhibit Hall
7:30 a.m. – 5:00 p.m.	Exhibit Hall Open
9:45 a.m. – 10:30 a.m.	Beverage and Networking Break in Exhibit Hall
12:00 p.m. – 1:00 p.m.	Lunch in Exhibit Hall
2:45 p.m. – 3:30 p.m.	Beverage and Networking Break in Exhibit Hall

Tuesday, October 23

7:30 a.m. – 8:30 a.m.	Continental Breakfast in Exhibit Hall
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12:00 p.m. – 1:00 p.m.	Lunch in Exhibit Hall
2:45 p.m. – 3:30 p.m.	Beverage and Networking Break in Exhibit Hall

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PATHWAYS

Pathways are designed to facilitate the identification of plenary and technical sessions, workshops, and technical tours of greatest interest to you. Look for icons designating the following pathways:

- **F** — Freight
- **I** — Implementation
- **L M** — Leadership / Management
- **T S MO** — Operations
- **P D** — Planning / Design
- **S** — Safety

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PROGRAM NOTES

Accessing the Internet

To access the Internet while attending the National Rural ITS and ITS Arizona Annual Conference + Exhibit, find and connect to SSID Hotel Guest on your device. No password is required.

Ticket Refund Policy

Tickets for individual events are sold on a space-available basis and may be purchased at the Registration Desk. No refunds are issued for unused tickets, whether purchased as part of the registration package or separately.

Payment Information

On-site registration and event fees may be paid by cash (U.S. dollars only), check (for the exact amount), or credit card (American Express, Mastercard, or Visa). Make checks payable to the Institute of Transportation Engineers. We do not accept Discover.

Cell Phones

Please be courteous to fellow meeting attendees: set your cell phones to vibrate before entering sessions. If you need to make or take a call, please step out of a session.

Attire

Participants are encouraged to wear business casual attire during the conference's technical program events.

Videotaping and Audio Recording

Videotaping or audio recording of sessions or technical exhibits as well as the unauthorized use of copyrighted material is prohibited.

Consent to Use Photographic Images

Registration and attendance at, or participation in, ITE-hosted conferences or other activities constitutes an agreement by the registrants to ITE's use and distribution of the registrant or attendee's image or voice in photographs, videotapes, electronic reproduction, and audiotapes of such events and activities.

Event Tickets

Attendees with a green badge will be required to hand in a ticket for some events and all technical tours will require a ticket. Tickets are distributed with your badge. Spouse/guest tickets are distributed with the registered attendee's badge. Please make sure to check for your tickets when you pick up your badge. If your tickets are missing or incorrect, please notify one of our registration staff.

Badges

Registration name badges must be worn while attending all technical sessions, social functions, and while in the exhibit hall.

Parking

Daily and valet parking is complimentary.

Disclaimer

The following program includes individuals confirmed at the time of publication. Information is subject to change. The views and opinions expressed by meeting participants are those of the participants and do not reflect official ITE or ITS Arizona policy unless so stated.

Statement of Inclusion and Equality

Individuals involved in developing, administering, and delivering learning events demonstrate high standards of professional conduct and do not discriminate against learners on the basis of gender, age, socioeconomic or ethnic background, religion, sexual orientation, or disability.

Earning PDHs (Professional Development Hours) and CMs (Certification Maintenance) Credits

The Institute of Transportation Engineers' Educational Foundation is the accrediting organization for this event. The technical content of this meeting meets most state and provincial registration board requirements for P.E./P.Eng. Licensure, Professional Traffic Operation Engineers® (PTOE), Professional Transportation Planners® (PTP), American Institute of Certified Planners (AICP), Traffic Signal Operation Specialists® (TSOS), and Florida Board of Professional Engineers (EXP0003871).

Sessions and/or tours eligible for PDH/CM credit toward PTOE, PTP, and/or AICP certification renewal have been identified in this program. At the end of each eligible session, please go to http://bit.ly/HowtoearnPDHcredits to complete a session evaluation. Once you have completed the evaluation, you will be notified by email that you earned a certificate for that session. You can view all your certificates earned by visiting the following URL and clicking "certificates": www.pathlms.com/ite/profile.

You **must** complete the evaluations to earn credit. You may not earn credit for more than one concurrent session at a time. Sign in is required. If you do not have an ITE member or non-member account, you will need to create one.

Questions? Please contact Courtney Day, ITE Professional Development Manager, at cday@ite.org.

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AGENDA

Sunday, October 21

7:00 a.m. – 6:00 p.m.	Registration Open Wassaja Foyer
7:00 a.m. – 4:00 p.m.	Exhibit Hall Move In (Exhibitors Only) Wassaja Ballroom
9:00 a.m. – 12:00 p.m.	NRITS Steering Committee Business Meeting Room 108
1:00 p.m. – 5:00 p.m.	Workshop: Connected Vehicle 201: Preparing for Connected Vehicle Deployment* Room 104
	Workshop: National SPaT Challenge – Goals, Concepts, and Resources* Room 108
6:00 p.m. – 7:30 p.m.	Welcome Reception Wassaja Ballroom

Monday, October 22

7:30 a.m. – 5:00 p.m.	Registration Open Wassaja Foyer
7:30 a.m. – 8:30 a.m.	Continental Breakfast in Exhibit Hall Wassaja Ballroom
7:30 a.m. – 5:00 p.m.	Exhibit Hall Open Wassaja Ballroom
8:30 a.m. – 9:45 a.m.	Opening Plenary Rooms 108-110
9:45 a.m.– 10:30 a.m. Stanley Consultants	Beverage and Networking Break in Exhibit Hall Wassaja Ballroom sponsored by Stanley Consultants
10:30 a.m. – 12:00 p.m.	Technical Sessions
	Supporting Tourism and Special Events: Traveler Information, Parking, and More Rooms 102-103
	Utilizing ITS for Rural Road Safety Rooms 104-105
	Roundtable on Rural ITS Room 106
	When Cars Talk to the Road: Connected Vehicles and Infrastructure Applications Room 107
12:00 p.m. – 1:00 p.m.	Lunch in Exhibit Hall Wassaja Ballroom
1:00 p.m. – 5:00 p.m.	Technical Tour: SmartDrive Test Bed* Meet in Wassaja Foyer 15 minutes prior to departure.
1:15 p.m. – 2:45 p.m.	Technical Sessions
	Technologies to Support More Efficient Emergency Response Rooms 102-103
	Addressing Rural Road Safety Using ITS Applications Rooms 104-105
	Innovation, Tools and ITS Research Room 106
AECOM	Highway Automation: What Do You Plan For? Room 107 sponsored by AECOM
2:45 p.m. – 3:30 p.m. iteris	Beverage and Networking Break in Exhibit Hall Wassaja Ballroom sponsored by Iteris
3:30 p.m. – 5:00 p.m.	Technical Sessions
	Rural Traffic Incident and Emergency Response Strategies Rooms 102-103
AECOM	Multimodal Transportation Technology (Light Rail | Bus | Bicycles | Pedestrians | Commuter Rail) Part 1 Rooms 104-105 sponsored by AECOM
	Using Technology to Solve Tribal Transportation Issues Room 106
	Urban | Rural and In Between: ITS Planning and Innovative Project Funding Room 107

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Tuesday, October 23

7:30 a.m. – 5:00 p.m.	Registration Open Wassaja Foyer
7:30 a.m. – 8:30 a.m.	Continental Breakfast in Exhibit Hall Wassaja Ballroom
7:30 a.m. – 3:30 p.m.	Exhibit Hall Open Wassaja Ballroom
8:30 a.m. – 10:00 a.m.	Technical Sessions
	What Gets Measured Gets Done: Performance Metrics Rooms 102-103
	Connected Vehicle Technology Pilot Program Overview and Open Source Apps Rooms 104-105
	Multimodal Transportation Technology (Light Rail | Bus | Bicycles | Pedestrians | Commuter Rail) Part 2 Room 106
	Rural and Small Community Traffic Management Technology – Traffic Signals and More Part 1 Room 107
10:00 a.m. – 10:45 a.m.	Beverage and Networking Break in Exhibit Hall Wassaja Ballroom
10:45 a.m. – 12:00 p.m.	Technical Sessions
	Big Data – All Communities Large and Small Rooms 102-103
	Connected Vehicle Technology into State's Traffic Management Center (TMC) Daily Operations Rooms 104-105
	Freight ITS in Rural Corridors Room 106
	Rural and Small Community Traffic Management Technology – Traffic Signals and More Part 2 Room 107 Sponsored by AECOM
12:00 p.m. – 1:00 p.m.	Lunch in Exhibit Hall Wassaja Ballroom
1:15 p.m. – 2:45 p.m.	ITS Arizona 25th Anniversary Plenary Rooms 108-110
2:45 p.m. – 3:30 p.m.	Beverage and Networking Break in Exhibit Hall Wassaja Ballroom
3:30 p.m. – 5:00 p.m.	Technical Sessions
	Rural ITS Weather Applications (Snow, Ice, Fog, Flood, and Dust) Part 1 Rooms 102-103
	Integrating Connected Vehicle Technology into State Operations Rooms 104-105
	Using TSM&O to Successfully Integrate and Utilize Emerging Technologies: Panel Discussion of DOT Leaders Room 106 Sponsored by AECOM
	Applications to Improve Reliability of Freeways and Arterial Operations Room 107

Wednesday, October 24

7:30 a.m. – 10:00 a.m.	Registration Open
7:30 a.m. – 8:30 a.m.	Continental Breakfast Courtyard Plaza
8:30 a.m. – 10:00 a.m.	Technical Sessions
	Rural ITS Weather Applications (Snow, Ice, Fog, Flood, and Dust) Part 2 Rooms 102-103
	Talking to Each Other: Connected Vehicles and Infrastructure Applications Rooms 104-105
	Developing and Maintaining Public Sector Resources and Workforce Room 106
	Next Generation ITS Technology Today Room 107
10:00 a.m. – 10:45 a.m.	Beverage and Networking Break Courtyard
10:45 a.m. – 12:00 p.m.	Closing Plenary Rooms 108-110
1:00 p.m. – 5:00 p.m.	Workshop: Smarter Work Zones* Rooms 104-105
	Technical Tour: Maricopa County DOT Traffic Management Center and Arizona DOT Traffic Operations Center * Meet in Wassaja Lobby 15 minutes prior to departure.

*Separate fee required

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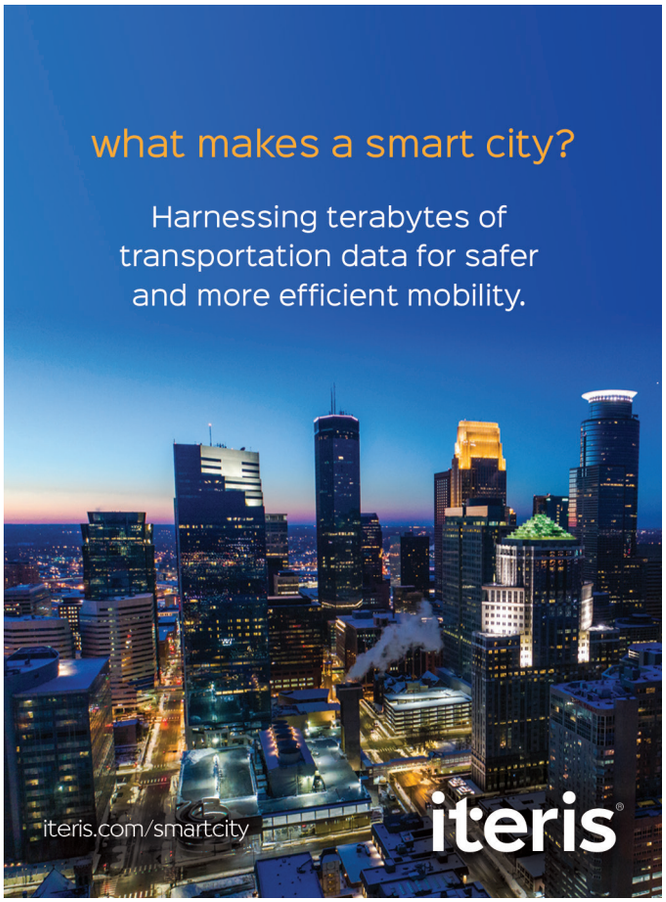

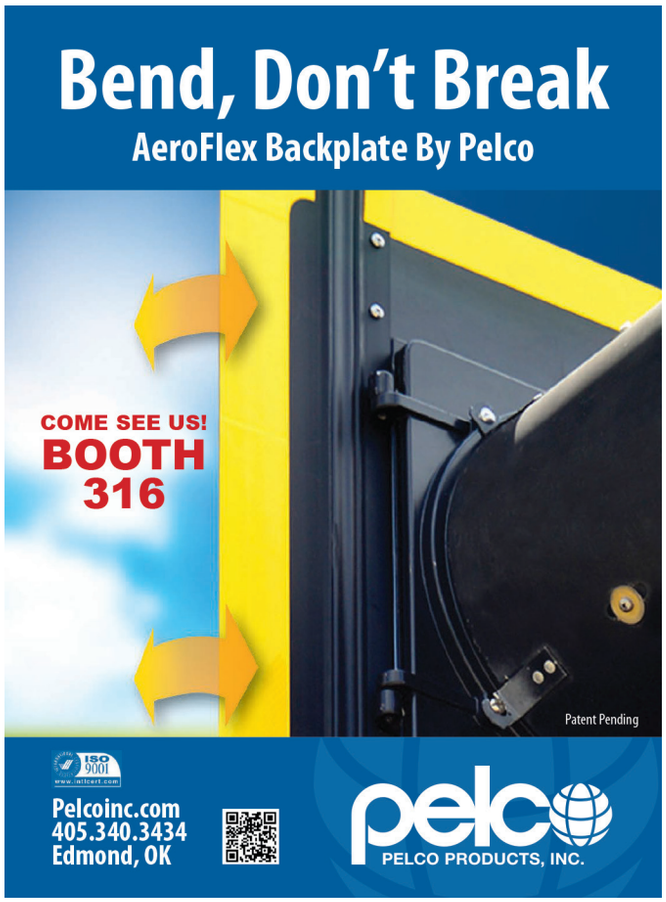

PLENARY SESSIONS

Opening Plenary Session

Monday, October 22, 8:30 a.m.– 9:45 a.m.
Rooms 108-110
Professional Development Credits: 1.0 PDH (PTOE/PTP)/ 1.0 CM (AICP)

Our keynote speaker is Mr. John Halikowski, Director of the Arizona Department of Transportation (DOT). John will share his perspective on the promise of advanced ITS technologies and the challenges to our organizations to lead and deploy them in a meaningful way in collaboration with the private sector. Appointed in 2009, John is one of the longest tenured leaders of a state DOT. He leads an agency responsible for planning, building and, maintaining the state's multimodal transportation system, managing transportation revenue, and providing motor vehicle title, registration, and driver license services. Prior to his executive role with Arizona DOT, John refined his transportation policy expertise during 12 years as the director of research at the Arizona House of Representatives, where he researched, presented, and drafted major transportation-related legislation. In addition, he has served in leadership roles with the Transportation Research Board and (American Association of State Highway and Transportation Officials (AASHTO). He also served as past President, WASHTO; Chair, AASHTO Standing Committee on Research, ITS Leadership Council, HELP Inc. Board of Directors and TRB Executive Committee.

ITS Arizona 25th Anniversary Plenary

Tuesday October 23, 1:15 p.m.– 2:45 p.m.
Rooms 108-110

ITS Arizona was founded in 1994 by a team of transportation professionals with the vision and dedication to improving our transportation system operations and safety. Our membership has grown to more than 300 members, including public agencies, private corporations and academic institutions. We are excited to be celebrating our 25th anniversary at this year's 2018 joint conference with NRITS. As part of this event, we will recognize the dedication and leadership of the ITS Arizona past presidents and present board, our members, exhibitors/sponsors, volunteers, and those who have contributed to ITS Arizona Foundation and growth. Join us as we stroll down memory lane - where we came from, where we are, and where we are going.

Closing Plenary

Wednesday, October 24, 10:45 a.m. – 12:00 p.m.
Rooms 108-110
Professional Development Credits: 1.0 PDH (PTOE/PTP)/ 1.0 CM (AICP)

Be sure to stay to the end of this year's meeting for an engaging conversation between Maricopa County Director Jennifer Toth and William T. Panos, Director and Chief Executive Officer, Wyoming Department of Transportation as they discuss the implications of advanced technology on the future of transportation safety, system management, and public agency operations. What are the key factors that influence our ability to manage and improve the transportation system effectively? What can we do now using innovative approaches to improve safety and reliability of travel while reducing our environmental footprint? How will the transportation agency of the future need to evolve to meet the changing needs of its customers? What role will technology play in eventually eliminating fatalities and reducing serious injuries on our roadways? These and other questions will be part of this provocative and forward-looking discussion.

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TECHNICAL PROGRAM

Monday, October 22
10:30 a.m. – 12:00 p.m.

Supporting Tourism and Special Events: Traveler Information, Parking, and More...
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)/ 1.5 CM (AICP)

L M

Learn more about the examples of events managed by rural states and supporting ITS technologies that enable safe and efficient operations for the public.

Facilitator:
David Huft, Program Manager, South Dakota DOT, Pierre, SD

Speakers:
TransView Traveler Information System

Paul Casertano, Transportation Program Administrator, Pima Association of Governments, Tucson, AZ

Josh Pope, GIS Manager, Pima Association of Governments, Tucson, AZ

How ITS Helps Music Bring Millions to a Rural Florida Community

Susan O'Rourke, O'Rourke Engineering & Planning, Inc., Stuart, FL

Major Event Management in the North/West Passage States

David Huft, Program Manager, South Dakota DOT, Pierre, SD

Eric Pederson, Captain, North Dakota Highway Patrol, Bismarck, ND

Utilizing ITS for Rural Road Safety
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)

S

Is your agency looking for innovative solutions to your most common transportation safety challenges? Are you interested in using technology, but not sure which one best fits the needs of your rural area? Or maybe you've considered ITS before, but are afraid they are too expensive or only applicable in an urban setting? This session provides an overview of the 42 topics in the newly released Rural Intelligent Transportation System (ITS) Toolkit.

Facilitator:
Natalie Villwock-Witte, Assistant Research Professor/Research Engineer, Western Transportation Institute, Bozeman, MT

Roundtable on Rural ITS
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP)/ 1.5 CM (AICP)

L M

This session will provide attendees with an overview of strategic issues facing the development and implementation of ITS rural and small communities as well as transferable lessons learned and a forward look at achievable outcomes.

Facilitator:
Steve Albert, Director, Western Transportation Institute, Bozeman, MT

When Cars Talk to the Road: Connected Vehicle and Infrastructure Applications
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)

P D

With technology applications to connect vehicles to roadway infrastructure advancing at a rapid rate, this session aims to provide perspective on the status and real-world deployment.

Facilitator:
Egan Smith, Managing Director, USDOT, ITS Joint Program Office, Washington, DC

Speakers:
Keeping Up with the Rapid Evolution of CAV

Stephen Kuciemba, National ITS Practice Leader, WSP, Baltimore, MD

The Case for Improving Work Zone Management and Communications in a Highly Automated Driving World

Eli Sherer, Director, Customer Projects North America, GEWI, Madison, CT

Preparing for Connected Vehicle Deployment

Robert Rausch, Vice President, Transcore, Richmond, TX

TECHNICAL PROGRAM

Monday, October 22
1:15 p.m. – 2:45 p.m.

Technologies to Support More Efficient Emergency Response
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

TS MO

Emergency responders rely on technology for their own safety and to improve outcomes for the people they serve. This session explores the connected technologies to improve emergency response.

Facilitator:
Michael Washkowiak, Transportation Systems, Iteris, Phoenix, AZ

Speakers:
Integrating Devices, People, and Processes in Real Time

Jack Jachner, Vice President Cloud, Alcatel-Lucent Enterprise, Agoura Hills, CA

The Future of 511 Phone in the North/West Passage States

Tony Ernest, Travel Services Coordinator, Idaho Transportation Department, Boise, ID

GDOT Rural and Coastal Georgia Incident and Emergency Management Strategies

Roderick Ware, ITS Supervisor, Georgia DOT, Atlanta, GA

Traffic Incident Management; Using ITS to Bridge the Gap Between Transportation Engineering and First Responders

Rita Brohman, Project Manager, Parsons, Las Vegas, NV

Pat Gallagher, Emergency Transportation Operations Specialist, Parsons Transportation Group, Las Vegas, CA

Addressing Rural Road Safety Using ITS Applications
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)

S

This session highlights rural safety projects where ITS has played a core role in supporting or measuring the success of safety outcomes.

Facilitator:
Kim Carroll, Senior Project Manager, Kimley-Horn, Phoenix, AZ

Speakers:
Rural Safety Projects: Side Street Entrance, Curves, Icy Conditions, and Bridge Decks

Kevin Hanson, Territory Manager, Idaho and Montana, Western Systems, Everett, WA

Statewide/Rural Safety Applications of Probe Data - Making a Difference in the Real World

Rick Schuman, Vice President, Public Sector, INRIX, Apopka, FL

Implementing Rural ITS in a Maintenance Environment

Dennis Mitchell, Senior ITS/Transportation Engineer, DKS Associates, Portland, OR

Using Urban Traffic Solutions to Manage Rural Queues

Randy Johnson, KC Scout Manager, Missouri DOT, Lee's Summit, MO

Innovation, Tools, and ITS Research
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP)

I

This session touches on the state for the practice in connect vehicle related procurement, open data and rural ITS communication as well as a presentation from the ITS Arizona Student Paper Award winner.

Elina Zlotchenko, Program Manager, USDOT, ITS Joint Program Office, Washington, DC

Speakers:
Connected Vehicle Procurement State of the Practice Assessment

Elina Zlotchenko, Program Manager, USDOT, ITS Joint Program Office, Washington, DC

Dedicated Short Range Communication for Rural ITS

Jim Whalen, Information Technology Manager, Nevada Department of Transportation, Carson City, NV

Open Data for Traffic Operations

Michael Jackson, Traffic Engineering Technical Leader, Olsson Engineering, Des Moines, IA

ITS Arizona Student Paper Competition Winner

Christopher Aguilar, Northern Arizona University

Highway Automation: What Do You Plan For? LM PD
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

LM PD

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With terms like smart cities and smart communities dominating conference agendas and on-going press coverage, the world is becoming increasingly focused on the next generation of technology integration. This discussion panel will be centered on a subset of those concepts, one practical for transportation engineers and planners, the idea of smart infrastructure or highway automation. Furthermore the proliferation of automatic driving systems causes infrastructure owners to consider high-level planning and policy decisions, digital infrastructure and data approaches, infrastructure design and multimodal safety, operations, and freight accommodation. This session will build on input received through the FHWA National Dialogue and supplement it with views from practicing professionals.

Facilitator:
Eric Rensel, Vice President, Gannett Fleming, Harrisburg, PA

Speakers:
John Corbin, Transportation Specialist, Federal Highway Administration, Brookfield, WI

Joseph Sagal, Director, Office of CHART and ITS Development, Maryland State Highway Administration, Hanover, MD

Denise Pearl, Cloud Platform, Google, Mountain View, CA

Steven Olmsted, Innovative Programs Manager, Environmental Planning, Arizona DOT, Phoenix, AZ

Steven Latoski, Director, Department of Public Works, Mohave County, Kingman, AZ

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Monday, October 22
3:30 p.m. – 5:00 p.m.

Rural Traffic Incident and Emergency Response Strategies
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

TS MO S

This session highlights incident and emergency response approaches that have been implemented to improve outcomes in rural environments.

Facilitator:
John Corbin, Transportation Specialist, Federal Highway Administration, Brookfield, WI

Speakers:
Successful Traffic Incident Management (TIM) Techniques – A Case Study The I-5/Joint Base Lewis-McChord Joint Operations Group (JBLM JOG) and I-5/Amtrak Train Derailment

Tony Leingang, Freeway Operations Manager, Washington State DOT, Tacoma, WA

The Importance of Traffic Incident Management on Rural Roads

Barbara Hauser, TMC Coordinator, Maricopa County DOT, Phoenix, AZ

Mark Brown, Incident Management Specialist, Maricopa County DOT, Phoenix, AZ

Using Big Data for After Action Reviews to Improve Incident Response and Clearance Time

Marc Franz, Transportation Specialist, University of Maryland CATT Lab, College, Park, MD

Multimodal Transportation Technology (Light Rail | Bus | Bicycles | Pedestrians | Commuter Rail) Part 1
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

TS MO I

Sponsored by AECOM

This session offers presentations on a variety of transit service and technology projects aimed at improving accessibility.

Facilitator:
Ratna Korepella, Principal Transit Planner, City of Scottsdale, Scottsdale, AZ

Speakers:
Improving Transit Operations Through Three Communities for PCTA and UMASS Transit

John Diaz, Vice President, Greenman-Pedersen, Inc., Wilmington, MA

Colin White, Project Engineer, Greenman-Pedersen, Inc., Wilmington, MA

Phased Development of the Automated Demand Response Feeder Transit System in Rural Areas

Amirreza Nickkar, Graduate Research Assistant, Morgan State University, Baltimore, MD

Wyoming Intercity Bus Service Study: Finding and Filling the Gaps in in Rural Areas

David Kack, Program Manager, Mobility and Public Transportation, Western Transportation Institute, Bozeman, MT

Using Technology to Solve Tribal Transportation Issues
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP) / 1.5 CM (AICP)

L M

This session provides an opportunity for a roundtable discussion between tribal transportation leaders, rural transportation agencies and consultants/industry representatives to connect needs, goal, and objectives to potential matching transportation technology resources.

Facilitator:
Philip Wisely, Public Works Director, Hualapai Tribe, Peach Springs, AZ

Urban | Rural and In Between: ITS Planning and Innovative Project Funding
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

P D

This session explores key factors in advancing ITS projects to construction such as the development of master plans and system architectures.

Facilitator:
John Hansen, Principal, 2 ITS-Help, Peyton, CO

Speakers:
Active Traffic Management in Michigan

Jennifer Foley, Traffic and Operations Engineer, Michigan DOT, Jackson, MI

Stephanie Palmer, Traffic, Safety and Operations Engineer, Michigan DOT, Jackson, MI

2018 Arizona Statewide ITS Architecture

Sarah Simpson, President, United Civil Group Corp., Phoenix, AZ

Reza Karimvand, System Technology Development Manager, Arizona DOT, Phoenix, AZ

Maricopa County Intelligent Transportation System Communication Master Plan

Michael Wendtland, Founder, Redhawk Solutions, LLC, Phoenix, AZ

LeShawn Charlton, ITS Communications Specialist, Maricopa County DOT, Phoenix, AZ

TECHNICAL PROGRAM

Tuesday, October 23

8:30 a.m. – 10:00 a.m.

What Gets Measured Gets Done: Performance Metrics

Rooms 102-103

Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

LM

Performance management is an integral element to the MAP-21 national performance goals for the Federal Highway programs administered by State DOTs and metropolitan planning organizations (MPOs). This has an update on the guidance and discussion of the performance management tools that agencies are implementing.

Facilitator:
April Wire, ITS Project Manager, Maricopa County DOT, Phoenix, AZ

Speakers:

MAP-21 Visual Analytics to Support Performance Reporting

Michael Pack, Director, University of Maryland CATT Lab, College, Park, MD

ATSPM Rural Applications – Arizona Experiences

Jeffrey Jenq, Director, ITS Planning Operations and Research, OZ Engineering, Tempe, AZ

April Wire, ITS Project Manager, Maricopa County DOT, Phoenix, AZ

Update on Performance Management Guidance from the Federal Highway Administration

Rich Taylor, Transportation Specialist, Federal Highway Administration, Washington, DC

Vehicle Trajectories for Improved Operations

Mark Franz, Transportation Specialist, University of Maryland CATT Lab, College, Park, MD

Connected Vehicle Technology Pilot Program Overview and Open Source Apps

Rooms 104-105

Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

PD F

This session provides an overview of the Connect Vehicle Pilot Program with a focus on the Wyoming DOT rural deployment case which focuses on improving safety and travel reliability during extreme weather conditions on the freight corridor, I-80. In addition, there will be information presented on the open source app development such as Pikalert, ODE, and Github.

Facilitator:
Kate Hartman, Chief of Research, Evaluation and Management, Connected Vehicle Pilot Deployment Program Manager, ITS-Joint Program Office, USDOT, Washington, DC

Speakers:
Vince Garcia, GIS/ITS Program Manager, Wyoming DOT, Cheyenne, WY

Ali Ragan, Project Manager, Wyoming DOT, Cheyenne, WY

Tony English, Owner and Mechanical Engineer, Neaera Consulting, Fort Collins, CO

Suzie Roseberry, ITS Developer, Wyoming DOT, Cheyenne, WY

Multimodal Transportation Technology (Light Rail | Bus | Bicycles | Pedestrians | Commuter Rail) Part 2

Room 106

Professional Development Credits: 1.5 PDH (PTOE/PTP) / 1.5 CM (AICP)

PD I

This session offers presentations on a variety of pedestrian and mobility technology projects aimed at improving safety and personal accessibility.

Facilitator:
Randy Dittberner, Senior Project Manager, Lee Engineering, Phoenix, AZ

Speakers:

Mobility on Demand Sandbox Project

Scott Miller, Transit Planning Section Manager/Associate Vice President, HDR, Phoenix, AZ

Hannah Quinsey, Transit Planner, Valley Metro, Phoenix, AZ

Pedestrian Behavior at Highway-Rail Grade Crossings: An Observational Study of Factors Associated with Violations, Distraction, and Walking Speeds During Train Crossing Events

Brendan Russo, Assistant Professor, Northern Arizona University, Flagstaff, AZ

Addressing Bicycle-Vehicle Conflicts with Alternate Signal Control Strategies

Edward Smaglik, Professor, Northern Arizona University, Flagstaff, AZ

Rural and Small Community Traffic Management Technology – Traffic Signals and More Part 1

Room 107

Professional Development Credits: 1.5 PDH (PTOE/PTP)

I

In this session participants will learn about innovative applications of traffic signal control technology to improve safety and operations on rural roads.

Facilitator:
Yung Kowproski, Principal, Y2K Engineering, Mesa, AZ

Speakers:

Preparing an Intersection for Variable Lane Use

James Sellards, Senior Engineering Technician, Fehr & Peers, Sacramento, CA

Evolution in the Use of Adaptive Signal Control Technology for Smaller Scale Applications

Joseph Herr, Senior Engineering Manager, VHB, Watertown, MA

Paul R. Bell, Chief – Communication and Control, VHB, Watertown, MA

Intersection Conflict Warning Systems

Jon Jackels, Senior Associate, SRF Consulting Group, Minneapolis, MN

Accessing the internet – SSID: Hotel Guest. No password is required.

Tuesday, October 23
10:45 a.m. – 12:00 p.m.

Big Data -- All Communities Large and Small
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

PD I

Data, lots of it, is available through all of the devices we personally use or those our organizations deploy. This session explores approaches to make that data information to impact decision-making and outcomes for safety and operations.

Facilitator:
Brandon Forrey, Transportation Planning Engineer, City of Peoria, Peoria, AZ

Speakers:
Beyond Roadside Traffic Counters: Breaking Big Data's AADT Barrier

Christy Willoughby, Senior Data Scientist, Streetlight Data, San Francisco, CA

Enhancing Traffic Safety and Mobility by Leveraging Big Data and Analytics

Farhad Pooran, Vice President System Product Management, Econolite, Anaheim, CA

Practical Advice for Working with 3rd Party Data Providers like Waze, HERE, INRIX, and TomTom

Michael Pack, Director, University of Maryland CATT Lab, College, Park, MD

Big Traffic Data and What You Should Know

John Shearer, Sales Director, Eberle Design Inc., Phoenix, AZ

Connected Vehicle Technology into State's Traffic Management Center (TMC) Daily Operations
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)

PD I F

Wyoming DOT successfully demonstrated to the USDOT and the media how messages from connected vehicles can be received by Wyoming's TMC in Cheyenne and integrated into its traffic management and information dissemination activities. In addition, lessons learned from the development and demonstration will be shared.

Facilitator:
Kate Hartman, Chief of Research, Evaluation and Management, Connected Vehicle Pilot Deployment Program Manager, ITS-Joint Program Office, USDOT, Washington, DC

Speakers:
Vince Garcia, GIS/ITS Program Manager, Wyoming DOT, Cheyenne, WY

Ali Ragan, Project Manager, Wyoming DOT, Cheyenne, WY

Tony English, Owner and Mechanical Engineer, Neaera Consulting, Fort Collins, CO

Suzie Roseberry, ITS Developer, Wyoming DOT, Cheyenne, WY

Freight ITS in Rural Corridors
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP)

F

This session explores the need and application of technology to improve freight safety, operations and information in rural areas. Much of the material in this topic area is in the domain of logistics companies and freight operators. However, with information, transportation agencies can assist these companies in meeting the objectives.

Facilitator:
Douglas Noble, Senior Director, Management and Operations, Institute of Transportation Engineers, Washington, DC

Speakers:
Central Data Repository for Traffic Data Collection in Rural Areas and Corridors Supporting Freight Mobility

Michael Wieck, Vice President ITS Data Solutions, International Road Dynamics, Centennial, CO

Advanced Solutions for Truck Traveler Information and Parking

Matt Hanson, Freight Research Project Manager, CalTrans, Sacramento, CA

Rural and Small Community Traffic Management Technology – Traffic Signals and More Part 2
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)

I

Sponsored by AECOM

In this session participants will learn about innovative applications of traffic signal control technology to improve safety and operations on rural roads.

Facilitator:
Jim Larsen, Congestion Management Supervisor, Ada County Highway District, Boise, ID

Speakers:
Traffic Signal Upgrades in Rural Communities

Scott Beck, Operational Traffic and Safety Manager, Arizona DOT, Phoenix, AZ

Adaptive Signal Control Technology for Rural Applications - Lessons Learned from the Bell Road ASCT Project

April Wire, ITS Project Manager, Maricopa County DOT, Phoenix, AZ

Alternative Energy at the Intersection

Ryan Bullock, Vice President, Cabinet Product Management, Econolite, Anaheim, CA

MIDAS: Proactive Traffic Control System for Diamond Interchanges

Viswanth Potluri, Research Associate, Arizona State University, Tempe, AZ

TECHNICAL PROGRAM

Tuesday, October 23
3:30 p.m. – 5:00 p.m.

Rural ITS Weather Applications (Snow, Ice, Fog, Flood, and Dust) Part 1
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)

TSMO

Weather in all its forms affects the safety and reliability of the transportation system. This session provides participants with a mix of ITS application topics to improve conditions for the traveling public.

Facilitator:
Bashir Ahmed Hassan, State Traffic Engineer, Arizona Department of Transportation, Phoenix, AZ

Speakers:
Rural ITS Weather Application: Virginia's I-77 Variable Speed Limit System for Low Visibility Conditions

Christopher McDonald, Regional Operations Engineer, Virginia DOT, Salem, VA

Bringing Automated RWIS Info to the Motorist

Todd Foster, Vice President of ITS Engineerng, Ver-Mac, Inc., Saint Paul, MN

Enhancing Highway Safety by Actively Warning Traffic of Adverse Road Conditions

Andrew Ceifetz, , Lead Transportation Engineer, WSP, Detroit, MI

Garrett Dawe, Region Operations Engineer, Michigan DOT, Gaylord, MI

Plow Camera and Location Sharing Practices

Tony Ernest, Travel Services Coordinator, Idaho Transportation Department, Boise, ID

Integrating Connected Vehicle Technology into State Operations
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)

TSMO

Several State DOTs have started to implement CV technology into their TMC operations. Representatives from the Colorado, Nevada, Utah, and Wyoming DOTs will share their experiences with respect to integrating the CV technology into the TMC operations, and discuss the different approaches and the roles of TMCs.

Facilitator:
Kate Hartman, Chief of Research, Evaluation and Management, Connected Vehicle Pilot Deployment Program Manager, ITS-Joint Program Office, USDOT, Washington, DC

Speakers:

Representative of Wyoming DOT, Cheyenne, WY

Representative of Nevada DOT, Las Vegas, NV

Representative of Colorado DOT, Denver, CO

Representative of Utah DOT, Salt Lake City, UT

Using TSM&O to Successfully Integrate and Utilize Emerging Technologies: Panel Discussion of DOT Leaders
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP) / 1.5 CM (AICP)

TSMO LM

Sponsored by AECOM

This panel session addresses ways in which transportation agencies can utilize the adoption of a holistic TSM&O program as a vehicle for also operating in a world in which connected and automated vehicles, and other emerging technologies, are fast becoming a reality.

Speakers:
Brent Cain, Division Director, TSM&O Division, Arizona DOT, Phoenix, AZ

Joseph Sagal, Director CHART & ITS Development, Maryland State Highway Administration, Hanover, MD

Tony Kratofil, Metro Region Engineer, Michigan DOT, Southfield, MI

Matthew Schiemer, Vice President Transportation Operations, Gannett-Fleming, Austin, TX

Applications to Improve Reliability of Freeways and Arterial Operations
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)

TSMO PD

Freeways and arterial streets are the core of the National Highway System. This session will provide examples of applications to improve travel time reliability in these corridors.

Facilitator:
Bruce Littleton, Traffic Engineering Supervisor, City of Phoenix, Phoenix, AZ

Speakers:
Optimizing Traffic Signals Using Multi-Source Data

Xiaofeng Li, Graduate Research Assistant, University of Arizona, Tucson, AZ

Yao-Jan Wu, Assistant Professor, University of Arizona, Tucson, AZ

Transportation Systems Management & Operations (TSMO) in Rural Areas

Joseph Gregory, Program Manager, SHRP2 Organizing for Operations, FHWA, Washington, DC

MAG Systems Management and Operations Plan

Margaret Boone, Transportation Safety Program Manager, Maricopa Association of Governments, Phoenix, AZ

Lisa Burgess, Vice President, Kimley-Horn, Phoenix, AZ

Small but Mighty - Ingredients for Efficiencies in Small Communities

Joe Guevara, Account Executive, Miovision, Kitchener, ON

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Wednesday, October 24
8:30 a.m. – 10:00 a.m.

Rural ITS Weather Applications (Snow, Ice, Fog, Flood, and Dust) Part 2
Rooms 102-103
Professional Development Credits: 1.5 PDH (PTOE/PTP)

TS MO

Weather in all its forms affects the safety and reliability of the transportation system. This session provides participants with a mix of ITS application topics to improve conditions for the traveling public.

Facilitator:
Rita Brohman, Project Manager, Parsons, Las Vegas, NV

Speakers:
Caltrans Aviation Weather Information (AWI) from Surface Transportation and Concept to Aviation and Implementation

Douglas Galarus, Assistant Professor, Utah State University, Logan, UT

Eastern Oregon Prioritizes ITS Solutions to Improve Safety Along a Rural Interstate

Jim Peters, Principal/National Director for Transportation Technology, DKS Associates, Portland, OR

Can A.I. Take Over Winter Road Condition Reporting?

Sinclair Stolle, Traffic Management Systems Engineer, Iowa DOT, Ames, IA

Arizona Pathfinder

Mark Trennepohl, Statewide Road Weather Manager, Arizona DOT, Phoenix, AZ

Talking to Each Other: Connected Vehicle and Infrastructure Applications
Rooms 104-105
Professional Development Credits: 1.5 PDH (PTOE/PTP)

P D

This session presents focuses on the connected technology beyond vehicle to vehicle (V2V) to the extension to infrastructure (V2I) and the associated communications implications.

Facilitator:
Marthand Nookala, Vice President, HNTB, Minneapolis, MN

Speakers:
Cloud-based Dynamic Warning System

Mohammad Smadi, Associate Research Fellow, North Dakota State University, Fargo, ND

Bradley Wentz, Program Director, North Dakota State University, Fargo, ND

Quality of Service Protocol for Traffic Management in Vehicular Ad-Hoc Networks

Faezeh Mesbahi, Graduate Student, Florida Polytechnic University, Lakeland, FL

The 5 Areas to Know and Prepare for V2V, V2I, and I2V Communications

Darryl Keeton, Founder and President, Sensagrate, Scottsdale, AZ

Developing and Maintaining Public Sector Resources and Work Force
Room 106
Professional Development Credits: 1.5 PDH (PTOE/PTP)/1.5 CM (AICP)

TS MO L M

Human resources and business processes are what allows an organization to meet its goals and objectives. This session explores a cross section of elements from education of the next generation to cyber security.

Facilitator:
Kiran Guntupalli, Acting Principal Engineer, City of Glendale Transportation Department, Glendale, AZ

Speakers:
Job Description Templates for TSMO Positions

Lisa Burgess, Vice President, Kimley-Horn, Phoenix, AZ

Reza Karimvand, System Technology Development Manager, Arizona DOT, Phoenix, AZ

TSMO Education in the Heartland

Randy Johnson, KC Scout Manager, Missouri DOT, Lee's Summit, MO

Cost Effectiveness and Cyber Security–Improving Transportation Device and Application Security

Lynne Randolph, Staff Engineer, Southwest Research Institute, San Antonio, TX

Next Generation ITS Technology Today
Room 107
Professional Development Credits: 1.5 PDH (PTOE/PTP)

I

The session explores the opportunities and examples of the next generation of ITS technology across a variety of new and evolving application environments.

Facilitator:
Jeffrey Jenq, Director, ITS Planning Operations and Research, OZ Engineering, Tempe, AZ

Speakers:
ITS Solutions and the Real World

James Gilbert, Director of Operations, GBA Systems Integrators, LLC, Lenexa, KS

Reading the Signs at MnDOT: Generating Roadwork Reports Automatically from GPS-Equipped Arrow Boards at Work Sites for Situational Awareness and Traveler Information

Kristen Virshbo, Chief Executive Officer, Castle Rock Consultants, Portland, OR

Utah's Smart Work Zone System Implementation

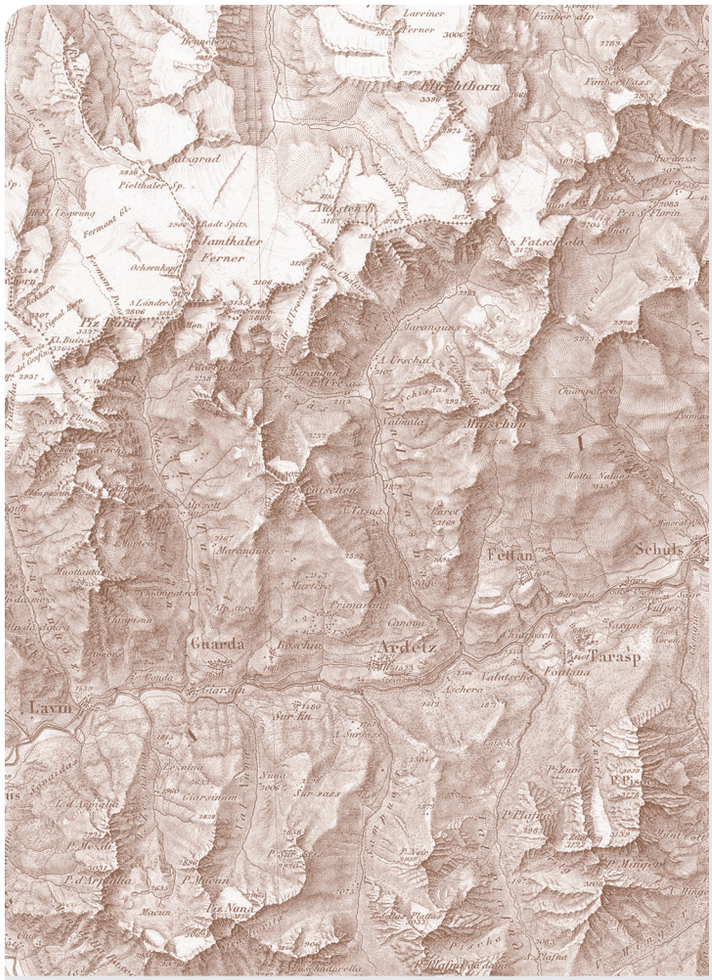
David Haines, Project Manager, Kimley-Horn, Mesa, AZ

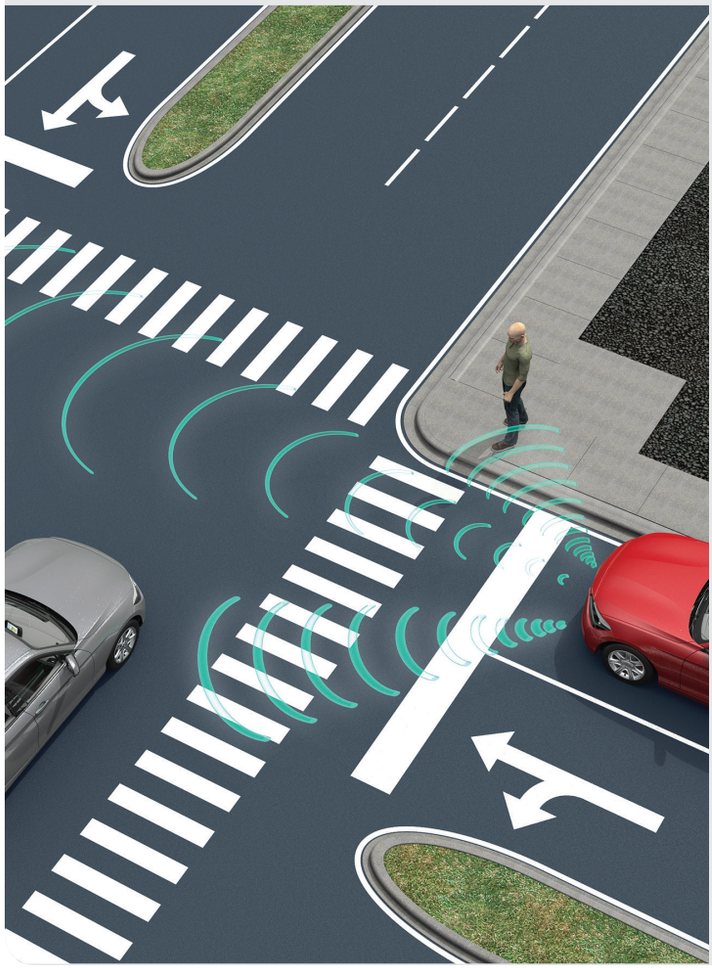
Deanna Haase, Project Engineer, Kimley-Horn, Mesa, AZ

Next Generation Mobility Management

Robert Sheehan, Program Manager, Multimodal ITS Research and Deployment, ITS-JPO, Washington, DC

Murat Omay, Transportation Engineer, Federal Transit Administration, Washington, DC





TECHNICAL TOURS

(separate fee required; available on a space available basis only)

Monday, October 22

1:00 – 5:00 p.m.

PD

SmartDrive Test Bed

Professional Development Credits: 2.0 PDH (PTOE/PTP)

The Maricopa County Department of Transportation, Arizona Department of Transportation, and the University of Arizona have established a test bed in Anthem, Arizona to operationally field test connected and automated vehicle (CAV) technologies. The tour will showcase the connected vehicle technologies deployed at the test bed and demonstrate integrated transit, emergency and freight vehicle prioritization applications at traffic signals through communication between connected vehicles and Systematically Managed ARTerial (SMART) traffic systems to reduce delays and improve safety.

The tour will also feature the demonstration of a smartphone pedestrian application that informs pedestrians when to cross, and provides alerts that support the user to remain aligned within the crosswalk based on real-time traffic signal information.

Registration Fee: $40
Maximum number of participants: 35

Wednesday, October 24

1:00 – 5:00 p.m.

TSMO

Maricopa County DOT Traffic Management Center and Arizona DOT Traffic Operations Center

Professional Development Credits: 2.0 PDH (PTOE/PTP)

The Maricopa County DOT Traffic Management Center and the Arizona DOT Traffic Operations Center are within a short distance of each other. This tour brings the opportunity to visit both for a behind the scenes look at how transportation and public safety are managed in a real time environment. Tour participants will hear about the operational approach to managing area transportation systems, an overview of the funding mechanisms and future plans.

Registration Fee: $40
Maximum number of participants: 35

All tour participants should meet in the Wassaja Foyer 15 minutes prior to departure.

Learning objectives for each tour may be found at www.nationalruralitsconference.org/.

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WORKSHOPS

(separate fee required; available on a space available basis only)

Sunday, October 21

1:00 – 5:00 p.m.

Connected Vehicle 201: Preparing for Connected Vehicle Deployment

PD

Room 401

Professional Development Credits: 2.0 PDH (PTOE/PTP)

This four-hour workshop is the third in a series of Connected Vehicle (CV) courses offered by the ITS JPO Professional Capacity Building program. The overall goal of the course is to teach participants how to develop an action plan in collaboration with regional partners to improve readiness for CV deployment. Participants will learn more about the safety, mobility, and applications and will gain an overview of three CV pilot sites in Wyoming, New York City, and Tampa. They will also learn how to identify funding sources for CV projects. Lastly, they will be made aware of recent activities supported by the ITS Joint Program Office and resources available from the USDOT-sponsored CV research program.

Presenter:
Gustave Cordahi, Lead Associate, Booz-Allen-Hamilton, Washington, DC.

Registration fee: $50
Maximum number of participants: 30

National SPaT Challenge Workshop: Goals, Concepts and Resources

PD I

Room 401

Professional Development Credits: 3.5 PDH (PTOE/PTP)

The National Signal Phase and Timing (SPaT) challenge goal is to encourage state or local agencies throughout the United States to deploy Dedicated Short Range Communications infrastructure with broadcasts of SPaT at approximately 20 intersection locations in each state by January 2020, typically in a corridor or network setting. Working with industry leaders through the Cooperative Automated Transportation Coalition, the SPaT Challenge Tactical Working Group with the National Operations Center of Excellence is providing this workshop to inform, communicate and share knowledge to the rural ITS community. The workshop will provide an overview of the challenge; resources for concept of operations, lessons learned, design, procurement and implementation and ways for participants to be able to encourage the deployment of Connected Vehicle applications in their organizations by starting with the broadcast of SPaT messages.

Presenters:
Dean Deeter, President, Athey Creek Consultants, Maplewood, MN
Faisal Saleem, ITS Branch Manager, Maricopa County Department of Transportation, Phoenix, AZ

Registration fee: $50
Maximum number of participants: 30

Wednesday, October 24

1:00 – 5:00 p.m.

Smarter Work Zones

Rooms 104-105

Professional Development Credits: 3.5 PDH (PTOE/PTP)

Stemming from the FHWA Every Day Counts Initiative Smarter Work Zones (SWZ) offer tools for effective traffic management during construction and are necessary to ensure motorist and worker safety, minimize travel delays, maintain access to local businesses and residences, and complete road work on time. This workshop will present technology applications such as queue management and speed management that involve deployment of Intelligent Transportation Systems (ITS) for dynamic management of work zone traffic. In addition, this workshop will provide an overview of the Work Zone Impacts and Strategies Estimator (WISE) software as well as other key aspects of different types of SWZ technology applications such as: Dynamic Lane Merge, Incident Management, Entering/Exiting Construction Vehicle Notification, and Performance Measurement.
Presenter:
Todd Peterson, Transportation Specialist, Federal Highway Administration, Washington, DC

Registration fee: $50
Maximum number of participants: 30

Learning objectives for each workshop may be found at www.nationalruralitsconference.org/.

EXHIBITOR DESCRIPTIONS

Adaptive Micro Systems LLC (Booth 114)
Jessie Swinea
jessie.swinea@adaptivedisplays.com
www.adaptivedisplays.com

Adaptive Micro Systems (AMS) has positioned itself as a contender in providing Full Color 20mm pitch DMS within the last 5-years with its warranty, and full customer support. AMS is leading in providing true Full Color DMS that meets today's MUTCD and future MUTCD standards. Adaptive exceeds the NEMA TS4 2016 standards without question and to push the boundaries to communicate the need to comply 100% with FCC Part 15 on all of our Amber and Full-Color Dynamic Message Signs and Roadside NTCIP Controllers. Please stop by our booth to learn more on the AXN2000, AX2020 & AX3500 full color series and the AX1550 Roadside NTCIP Controller with its patented approach on operating more than one DMS from a single IP address design.

Advanced Traffic Products (Booth 103)
Daniel Beck
catarina@advancedtraffic.com

Since 1993, Advanced Traffic Products, Inc. has provided the transportation industry with innovative products and technology designed to improve the safety and efficiency of current and future transportation infrastructures.

Advantech B+B SmartWorx (Booth 100)
Ken Kao
ken.kao@advantech.com
Advantech-bb.com

For more than 30 years, B+B SmartWorx powered by Advantech has been designing and manufacturing intelligent network connectivity solutions for both wired and wireless networks. The company provides product solutions using communication technologies including Ethernet, serial, wireless, cellular and USB. In 2016, B+B SmartWorx became part of Advantech, a leading global provider of trusted and innovative products, services and solutions in industrial automation and embedding computing across diverse industries. B+B SmartWorx along with Advantech have added even more sophisticated solutions for customers. Learn more at www.advantech-bb.com

American Signal Company (Booth 104)
http://amsig.com/

American Signal Company (Amsig), founded in 1990 and based in Atlanta, Georgia, is a manufacturer of a comprehensive line of portable products for a variety of informational and traffic control applications including message signs, cameras, Highway Advisory Radios, and sensors. Amsig's catalog of equipment, while manufactured with individual and unique features and characteristics, shares a common background with respect to parts, programming protocol, and operational features. This commonality among products assures that quality and cost-effectiveness are never compromised regardless of which Amsig solution best meets pertinent operational requirements and purchasing constraints. American Signal is a technology and sales-focused company, with a flexible, high-capacity, state-of-the-art, ISO-compliant manufacturing facility.

AM Signal (Booth 219)
https://www.amsignalinc.com/

Established in 2001, AM Signal has grown to be a leader in the distribution of traffic signal control devices and Intelligent Transportation Systems (ITS) in the Rocky Mountain Region. We are a full service, stocking distributor for numerous product lines, with full support from design to technical. AM Signal was founded by Arnold and Maureen Undzis in 2001. We are experts in Intelligent Transportation Systems (ITS). We can help you design a system to compliment your existing infrastructure.

Antaira Technologies (Booth 310)
Danielle Vail
danielle@westwardsales.com
www.westwardsales.com

Westward Sales is a value-added distributor and integrator of industrial-grade computing and communication equipment. We partner with leading manufacturers of 4G LTE routers, Ethernet switches, fiber modules, wireless access points, and antennas. We are not your typical high-tech supplier. Founded by engineers, we consult, advise and deliver cost-effective solutions that fit the job at hand. We proudly support Antaira Technologies, a leader in networking products for Intelligent Transportation Systems. Save time and money on your next project. Contact us today!

Applied Information, Inc. (Booth 206)
https://appinfoinc.com/

Applied Information was created to meet the needs of industries blindly investing into well-intentioned practices, without the information based on real data that is needed to make effective investment and operations decisions. The team has approached this opportunity armed with decades of technical and business experience. By further leveraging in- house industry experts, the AI family has grown to create unique, effortless, and reliable solutions for each client in their various applications and industries. For each new industry we enter and new client we serve, ours solutions excel to the best practice standards and leverage the experience we gain across all the industries we serve.

Boschung America (Booth 115)
Chris Vitek
cgv@boschungamerica.com
https://boschungamerica.com/

Boschung America is the leading provider of effective state-of-the-art systems used to monitor weather and surface conditions on airfields, highways and bridges in North America. Boschung's hardware and software products provide airport and highway maintenance operations personnel with the data and tools needed to implement intelligent solutions that ensure the safety of our nation's travelers.

Campbell Scientific Inc. (Booth 119)
John Markham
jmarkham@campbellsci.com
www.campbellsci.com

Campbell Scientific has built research-quality dataloggers and sensors for over 40 years. Our standalone measurement and control systems operate reliably even in harsh, remote environments and are being used in thousands of applications. Campbell RPUs are NTCIP compliant and feature an open architecture for complete adaptability. Our RWIS products cover the complete range of solutions from individual hardware components to data products that deliver actionable information to key decision makers.

Clark Transportation Solutions (Booth 106)
Scott Clark
scott.clark@clark-inc.com
www.clarktransportationsolutions.com

Clark Transportation Solutions provides product and software solutions for traffic, ITS, street lighting and communications. We work with leading manufacturers including McCain, Gridsmart, GE Lighting, Genetec, and Valmont. We are celebrating 15 years of delivering quality products and superior customer service.

CITEL (Booth 212)
Patrick Radler
pradler@citel.us
http://www.citel.us/

Since 1937, CITEL Inc has manufactured a complete line of surge protective devices (SPD) to protect sensitive equipment from the harmful effects of lightning strikes and other power line disturbances. CITEL is a world leader in transient voltage surge suppression products and components including AC power surge protection, DC power surge protectors, RF coaxial surge suppressors and the component gas discharge tube (GDT) surge arrestor.

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EXHIBITOR DESCRIPTIONS

CohuHD Costar (Booth 209)
Curtis Duplack
cduplack@cohuhd.com
www.cohuhd.com

CohuHD Costar designs and manufactures rugged HD CCTV video surveillance camera systems for critical infrastructure and transportation. Our video cameras monitor the most critical, sensitive environments such as border security and transportation, specifically traffic (ITS), maritime ports, airports and railways. Founded in 1946, CohuHD Costar manufactures in the U.S. the most reliable, rugged video cameras available. CohuHD Costar is a wholly-owned subsidiary of Costar Technologies, Inc. (OTC Markets Group: CSTI)

Comtrol Corporation (Booth 312)
Katya Lee
katya.lee@comtrol.com
https://comtrol.com

For more than 30 years, Comtrol Corporation has been a manufacturer and provider of quality networking and industrial data communication products, specializing in industrial Ethenet and device connectivity. With representation across North America, EMEA, and Latin America, Comtrol sells RocketLinx® industrial grade Ethernet and Power over Ethernet switches, DeviceMaster® Ethernet device servers and gateways, and RocketPort® multiport serial cards through distributors, resellers, and integrators worldwide. Providing exceptional product and technical support, Comtrol establishes solutions for a wide range of security, energy, industrial automation, and traffic and transportation applications.

Daktronics (Booth 302)
Sarah Hill
tbuconventions@daktronics.com
www.daktronics.com

Daktronics Transportation guides people in motion by communicating travel information related to flight and transit schedules; roadway congestion or detours; parking availability and more with Vanguard® dynamic message signs and Galaxy® message displays. Transportation serves state and city departments of transportation, airports, parking facilities, mass transit agencies and tollway authorities.

Dialight Corp. (Booth 308)
Toni Smith
tsmith@dialight.com

Our purpose is to improve the world we live in through sustainable, energy efficient and intelligent LED lighting technologies. We enable industrial customers operating in demanding environments to reduce their energy costs, maintenance costs, and carbon footprint while maximizing the safety and productivity of their facilities. With over 40 years of industrial LED lighting experience and the largest installed base in the world, Dialight's extensive network of support staff, distributor and channel partners are ready to help you select among our wide range of products to identify a lighting solution that meets your specific needs.

Eberle Design Inc. (Booth 208)
Birgit Olson
bolson@editraffic.com
www.editraffic.com

Eberle Design, Inc. headquartered in Phoenix, Arizona, and its wholly owned subsidiary Reno A&E, based in Reno, Nevada, are both global market leading manufacturers of mission critical intersection safety monitoring, vehicle detection and peripheral electronics for the traffic control, parking/access, rail industries. Products include infrastructure control components that allow transportation and access control professionals to integrate, automate and manage intersections, roads and access points easily, efficiently, and safely.

Econolite Group, Inc. (Booth 204)
Persephone Oliver
poliver@econolite.com
www.econolite.com

Econolite's Intelligent Transportation System (ITS) solutions ease traffic congestion, provide safer mobility and improves quality of life. As the one-stop-shop leader for traffic management systems, sensor products, and services, our broad offerings also include planning and design of turnkey, multi-modal transportation systems, software engineering, traffic network implementation, integration, operations, and maintenance. Econolite is committed to the advancement of connected and autonomous vehicles, smart cities, and cybersecurity. For more information, visit us at www.econolite.com.

EtherWAN Systems, Inc. (Booth 113)
Steve Frank
steve.frank@etherwan.com
https://www.etherwan.com/us
EtherWAN Systems, Inc. is a leading manufacturer of Hardened Ethernet, PoE, and Fiber connectivity products specifically designed for harsh and demanding environments. Founded in 1996 in Irvine CA, EtherWAN specializes in the designing and manufacturing of Ethernet Switches, Media Converters, Ethernet Extenders and Power over Ethernet products for applications where connectivity is crucial. With our core focus on Ethernet connectivity for extreme environments with stringent requirements product reliability and quality are top priority. EtherWAN's product development, engineering, manufacturing and quality assurance processes are structured to push the limits of stated specifications resulting in products that continually exceed expectations. Our goal is to provide quality reliable products for extreme applications, markets, and environments.

FiberShear by Cleveland Electric Labs (Booth 205)
John Murphy
jmurphy@cel-atg.com
www.clevelandelectriclabs.com

CEL, a family-owned company, has been providing sensing solutions since 1920. Our Advanced Technologies Group continues to develop new and important sensing and application capabilities. We serve customers both nationally & internationally. Our family of sensor products addresses a host of common weaknesses for three primary areas: Security (conduit, platform, perimeter, and discrete switch intrusion detection), Structural Health Monitoring, & Pipeline Leak Detection. We have recently added ITS with our our CSP FiberShear product to protect critical infrastructure.

Fortel Traffic (Booth 117)
Jayne Dyer
jdyer@forteltraffic.com
http://www.forteltraffic.com/

Fortel Traffic, inc. is one of the most innovative companies in the Traffic Industry. With state of the art products such as VCalm® a vehicle calming unit and VSpeed™Online Software for data collection and programming, Fortel stays ahead of the curve. Fortel Traffic's main focus is on the safety of our streets.

Genetec (Booth 107)
Christian Chenard-Lemire
cclemire@genetec.com
www.genetec.com

Genetec is the world leader in open-platform unified IP software solutions for security and operations. For the past four years, Genetec has been ranked #1 in market share in the Americas for Video Management System (VMS) solutions according to HIS, with a market share of over 20%. Genetec continues to focus on delivering world-class solutions, which has allowed our platform to be chosen as the standard across the globe. In fact, from the smallest to the largest, clients have chosen Genetec as their standard over the years, thanks to its unmatched scalability, reliability and ease-of-use.

EXHIBITOR DESCRIPTIONS

GRIDSMART Technologies, Inc. (108)
Christie Knapper
marketing@gridsmart.com
GRIDSMART.com

GRIDSMART Technologies, Inc. develops, commercializes, and sells efficient Intelligent Traffic Systems, Internet of Everything, and services to municipal partners around the world. Build on uncompromising core principles - Simple, Flexible, and Transparent - GRIDSMART delivers simple solutions for complex traffic problems for customers of all sizes.

High Sierra Electronics, Inc. (Booth 105)
Sue Swenor
sue@hsierra.com
www.hsierra.com

Since 1992, High Sierra Electronics, Inc. (HSE) has been designing and manufacturing environmental monitoring systems for the protection of lives and property Our systems help identify threats posed by the weather, which include flooding, dangerous road conditions, and vulnerable dams and levees. HSE's monitoring systems includes all the remote site hardware, communications, and central base station equipment for a complete integrated solution. These systems are typically solar powered and are ideally suited for applications in harsh, remote locations where collecting and reporting real-time environmental data is vital.

Horizon Signal Technologies (Booth 111)
Scott Heydt
sheydt@horizonsignal.com
Horizonsignal.com

Horizon Signal Technologies, Inc. is a privately held Pennsylvania-based company specializing in meeting the needs of the road construction industry through the manufacture of portable traffic signal systems. Since our inception in 1988, we have dedicated ourselves to manufacturing the high quality, dependable traffic signal systems that provide superior reliability and versatility.

IBI Group (Booth 216)
Mike Haas
mike.haas@ibigroup.com
https://www.ibigroup.com/

IBI Group is a global team of industry leading architects, engineers, planners, designers, and technology professionals united by a common desire: to create livable, sustainable, technologically advanced urban environments. We are a technology-driven design firm.

Image Sensing Systems (Booth 303)
Tony Wheeler
info@imagesensing.com
www.imagesensing.com

Image Sensing Systems is dedicated to helping improve safety and efficiency for cities and highways by developing and delivering above-ground detection technology, applications and solutions. Our industry leading RTMS products position us to provide powerful, innovative technology solutions for transportation officials around the world. As our world becomes truly connected, ISS will lead the evolution of smart sensor solutions for connected infrastructure.

Interwest Safety Supply, LLC (Booth 203)
https://www.interwestsafety.com/

Founded in 1977, Interwest manufactures highway construction and roadway signs and distributes a wide variety of traffic safety supplies and equipment used to signal, protect, delineate, notify, and guide pedestrians and vehicles safely through work zones. Headquartered in Provo, Utah, Interwest Safety Supply is the largest distributor of traffic safety supplies, as well as the largest manufacturer of roadway signage in the Rocky Mountain region. The company operates from five distribution facilities and two manufacturing facilities located in Utah, Colorado, New Mexico, Arizona, and Nevada. Customers include the Department of Transportation (state and federal), road contractors, general contractors, small sign manufacturers, municipalities, airports, schools, universities, law enforcement, rental companies, and private industry. These safety products are used in a multitude of construction and maintenance projects involving highways and streets, infrastructure, utilities, landscaping, development, general construction, events, crowd control, accidents, natural disasters, law enforcement, and land development, to name a few.

Iteris, Inc. (Booth 317)
Ginny Acosta
gmt2@iteris.com
www.iteris.com

Iteris is the global leader in applied informatics for transportation, turning big data into big breakthrough solutions. We collect, aggregate and analyze data on traffic and roads to generate precise informatics that lead to safer transportation. Municipalities and government agencies around the world use our solutions to make roads safer and travel more efficient. For more information, visit www.iteris.com

JTB Supply Co. (Booth 301)
Randy Ristow
Randyjtbsupplyco@gmail.com
jtbsupplyco.com

JTB Supply, our people, our philosophy and our commitment to quality is the difference and what allows us to provide our customers with comprehensive solutions to their traffic equipment needs. For over 15 years, we've served municipalities and contractors throughout California, Arizona and Nevada. We offer rapid turnaround and delivery on your urgent requests along with the expertise to ensure you get it right the first time, every time. Our manufacturers and the products they produce, have earned a strong reputation for quality and reliability.

Kimley-Horn (Booth 201)
Ken Ackeret
ken.ackeret@kimley-horn.com
www.kimley-horn.com

Kimley-Horn has been committed to the transportation profession for more than 50 years, and we continue to be a proud member, sponsor, and exhibitor of the Institute of Transportation Engineers. With over 80 offices across the nation, our multi-disciplinary team of engineers, planners, and technicians develops practical solutions for all of your transportation projects.

L4 Technologies (Booth 307)
Lain Mohn
lmohn@layer4tech.com
www.layer4tech.com

Headquartered in Phoenix, AZ – L4 Technologies is a leading technology service provider specializing in wireless networks, data infrastructure, and rugged technology solutions. L4 Technologies provides turnkey ITS solutions for state and local governments which may include last mile over of the air, surveillance or remote Wifi solutions.

Accessing the internet – SSID: Hotel Guest. No password is required.

EXHIBITOR DESCRIPTIONS

Mauell Corporation (Booth 109)
Brian Wanner
brian.wanner@mauell.com
www.mauell.com

Mauell Corporation develops, builds, and maintains control rooms and control room software for the public safety, energy and transportation industries. Mauell Corporation has the capacity to design, fabricate, construct, and install any control room needs. Our ability to engineer practical solutions within the control room has given great credibility to our design service offerings. We also have the ability to handle your construction management ensuring all design needs are addressed and your entire project is managed effectively.

MicroTraffic (Booth 305)
Craig Milligan
craig.milligan@microtraffic.com
microtraffic.com

MicroTraffic provides road safety video analytics. Engineers use near-miss data from MicroTraffic to make life-saving decisions in road safety. Our comprehensive and affordable reports provide a suite of safe systems conflict indicators that you can use for risk diagnostics, benchmark comparisons, site prioritization, intervention selection, and before-after studies. MicroTraffic's technology is based on the world's most powerful artificial intelligence. You can unlock the power of high resolution risk data for proactive road safety management with MicroTraffic.

Miovision (Booth 304)
Lisa Wilhelm
lwilhelm@miovision.com
https://miovision.com/

Founded in 2005, Miovision's mission is to empower cities to improve the transportation experience for citizens. Miovision is reinventing the way traffic infrastructure is managed with our industry-leading traffic data collection solution and cloudbased remote signal management technology. Today, Miovision technology is being used at close to 50% of the traffic intersections in North America. For more information, visit www.miovision.com.

MSI TEC Inc. (Booth 213)
Alex Wraight
info@msitec.com
msitec.com

For more than 3 decades, MSI TEC has delivered world-class engineering solutions in Automation, Motion Control, Robotics, and Industrial Computing & Networking to our customers. Along the way, we've built lasting relationships and have become a trusted partner for those seeking quality, innovation and expertise. Our team of in-house engineers have an average of 20 years of experience across a wide range of disciplines and work in concert with you to develop solutions specific to your needs. With our deep knowledge and expertise in industrial automation, IIoT, collaborative robotics, machine intelligence, remote monitoring and more, we can deliver innovative technology to help you achieve greater productivity and a competitive advantage.

Multilink, Inc. (Booth 218)
John David Sullivan
jdsullivan@gomultilink.com
www.gomultilink.com

Multilink is an engineering and product development based manufacturer of telecommunications, network components, traffic signaling products for the for the traditional DOT markets throughout the United States and Canada. Over the past several the core traffic business has expanded into the ITS world with an ever-expanding and innovative product offering to our end users.

Pelco Products, Inc. (Booth 316)
Paul Koenig
Paul.Koenig@pelcoinc.com
pelcoinc.com

With Pelco Products, innovation always comes standard. Pelco Products, Inc. is an Oklahoma based, family-owned business specializing in designing, engineering, manufacturing and distributing the finest traffic and utility products. Founded in 1985 with 5 employees, Pelco Products, Inc. now employs over 300 Team Members in 315,000 square feet of manufacturing space. Pelco is dedicated to serving its two primary markets, Traffic and Utility, globally through Innovative Solutions, Quality Products & Unparalleled Customer Service.

SES America (Booth 202)
https://www.sesamerica.com/

Founded in 1986 in Rhode Island, SESA is a high quality multi-sign solution manufacturer for the ITS industry focused on providing Dynamic Message Signs and retrofit packages to clients across the United States. Having recently relocated to new, larger facilities, we are proud to say that our signs are manufactured right here in the US and that we are fully equipped to meet our clients' unique needs, accomplishing our core goal of delivering quality, innovative ITS products and customized solutions. Our experienced, expert technicians and engineers work diligently to fill the requirements of any project, whether it is a single sign, a more complex ITS system, or a situational, custom-tailored product solution.

Siemens Industry, Inc./RUGGEDCOM (Booth 309)
Randy Carl
randall.carl@siemens.com
https://w3.siemens.com/mcms/industrial-communication/en/rugged-communication/ruggedcomportfolio/ pages/portfolio.aspx

No matter what the communications application or how extreme the conditions – the RUGGEDCOM product portfolio has the right solution: from switches and routers to media converters, serial device servers, wireless WAN and LAN, software and application solutions and more.

Sierra Transportation & Technologies (Booth 101)
http://www.sierratt.com/

Sierra Transportation & Technologies is the distributor of choice for many of the most respected manufacturers of transportation control equipment. With over 50 years of combined experience, the Sierra Transportation & Technologies team have been meeting the needs of local and state agencies and contractors with the most up-to-date and dependable intelligent transportation systems solutions, transportation management, transportation communication, and traffic control hardware since 2010. Sierra Transportation & Technologies has offices in Reno, Las Vegas and Phoenix and is committed to providing cuttingedge products, integrity, and delivering an uncompromising regard for outstanding customer service now, and in the future.

EXHIBITOR DESCRIPTIONS

Simrex Corporation (Booth 314)
Shari Tona
sktona@simrex.com
www.simrex.com

Simrex Corporation develops and manufactures traffic and ITS products and full solutions with a focus on wireless connectivity. Most systems have solar power options. Simrex also provides engineering services for this market and has sales and engineering resources in the greater Phoenix area.

Southern Manufacturing (Booth 110)
Jeremy Huffman
jhuffman@southernmfg.com
http://www.southernmfg.com/

Since 2011, Southern has been part of Earnest Products, an ISO 9001 manufacturer of fabricated metal products. Earnest Products operates one of the largest, most modern enclosure manufacturing plants in the U.S. Earnest Products consistently meets and exceeds the demanding quality and tolerance standards of OEM customers in various industries including medical and transportation.

Southwest Traffic System (Booth 211)
Fred Roush
froush@southwesttraffic.com
www.southwesttraffic.com

Distributor of Trafficware, Tomar, and GE Lighting products.

Summit Traffic Solutions (Booth 112)
Robert Morelli
robert@summit-traffic.com
www.summit-traffic.com

Distributor of ITS and Transportation Equipment

Traffic and Parking Control Co. Inc. (Booth 214)
Dylan Thompson
dylan.thompson@tapconet.com
https://www.tapconet.com/

TAPCO (Traffic & Parking Control Co., Inc.) is a Wisconsin based business headquartered in Brown Deer, Wisconsin dedicated to manufacturing, distributing and servicing the latest innovations in safety. Founded by Ray Bergholz in 1956, TAPCO has remained privately owned by two families for three generations.

TrafficCast International (Booth 215)
Scott Robinson
srobinson@trafficcast.com
http://www.trafficcast.com/

TrafficCast is the leader in travel time forecasting and traffic information, developing technology, applications and content based on advanced digital traffic data. TrafficCast serves the interactive, mobile, enterprise and public sector markets. The company's founders and senior management team have deep experience in traffic management systems, traffic flow theory and probe data technologies, as well as mobile services, digital content and media marketing.

TrafficVision (Booth 102)
Ray Keys
raykeys@trafficvision.com
http://www.trafficvision.com/

TrafficVision software turns any traffic monitoring camera into an intelligent sensor. Specifically built for Intelligent Transportation Systems (ITS), TrafficVision monitors digitally encoded video streams of traffic cameras on highways to immediately detect incidents and continuously collect real-time traffic data. Using existing camera infrastructure, TrafficVision helps traffic managers make proactive decisions based on immediate incident alerts that are visually verifiable, providing more information about what is happening on highways, bridges and tunnels. TrafficVision helps organizations get more use out of their ITS investment, leveraging both existing and new video assets. By providing the information needed to reduce the impact of incidents and recurring congestion on highways, TrafficVision helps traffic managers provide safer and more efficient travel for the public.

Vaisala (Booth 207)
https://www.vaisala.com/en

Innovation and technology are cornerstones for Vaisala's success and we keep advancing the art of environmental observations. Technological innovation is in our DNA, and want and need to be at the cutting edge of development, to find new solutions to customer needs in demanding applications.

Ver-Mac (Booth 306)
Sandon Button
sandon.button@ver-mac.com
https://www.ver-mac.com/en

Ver-Mac is a worldwide leading manufacturer of electronic traffic control equipment including solar portable variable message signs, light towers, arrowboards, traffic signals, speed signs, cameras and sensors. Ver-Mac's JamLogic software brings intelligence to work zones by providing real-time traffic management solutions. Our vertically integrated manufacturing facility and leading-edge R&D department allow Ver-Mac to provide the traffic safety industry with the highest quality state-of-the-art products and solutions.

Wanco, Inc. (Booth 217)
https://www.wanco.com/

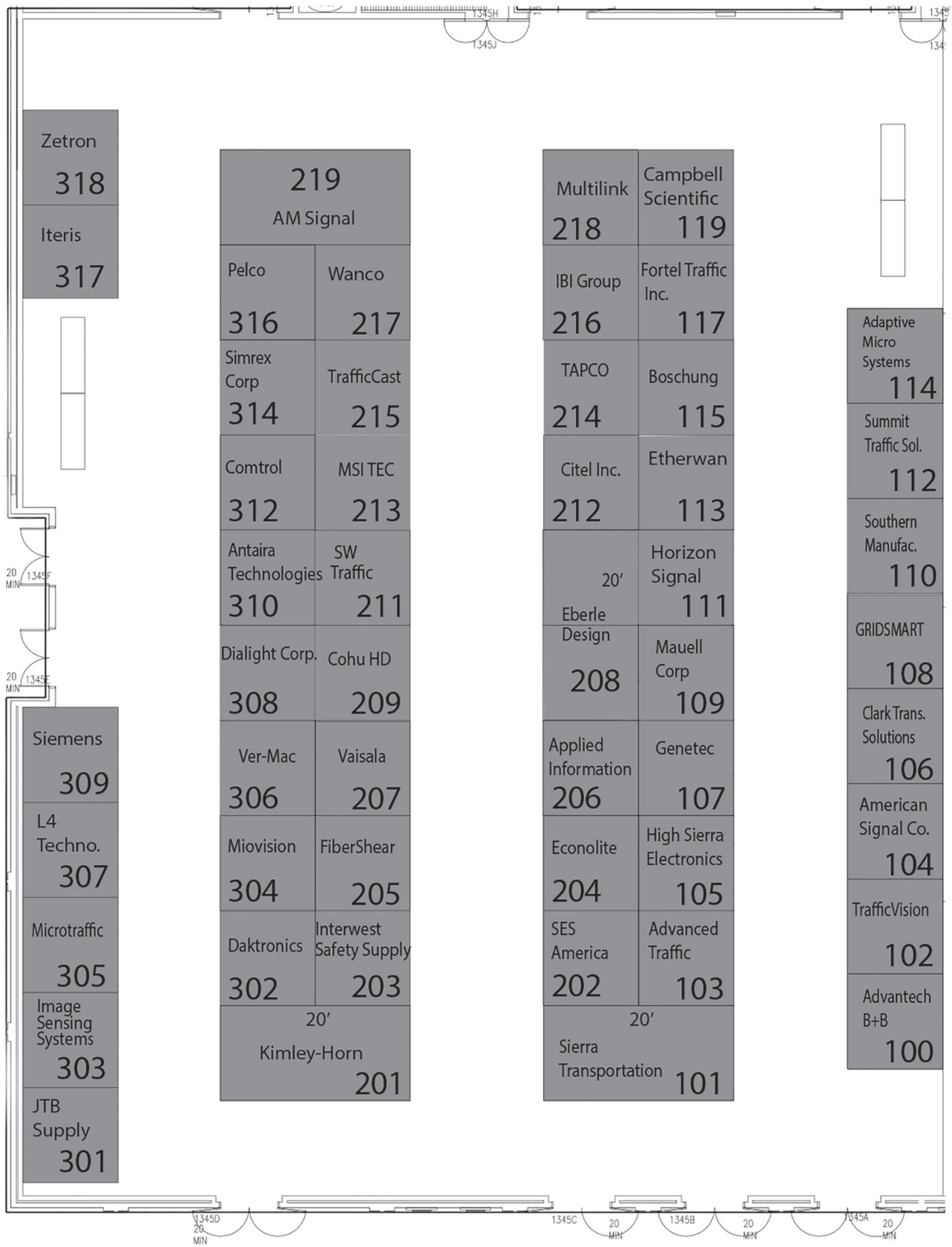
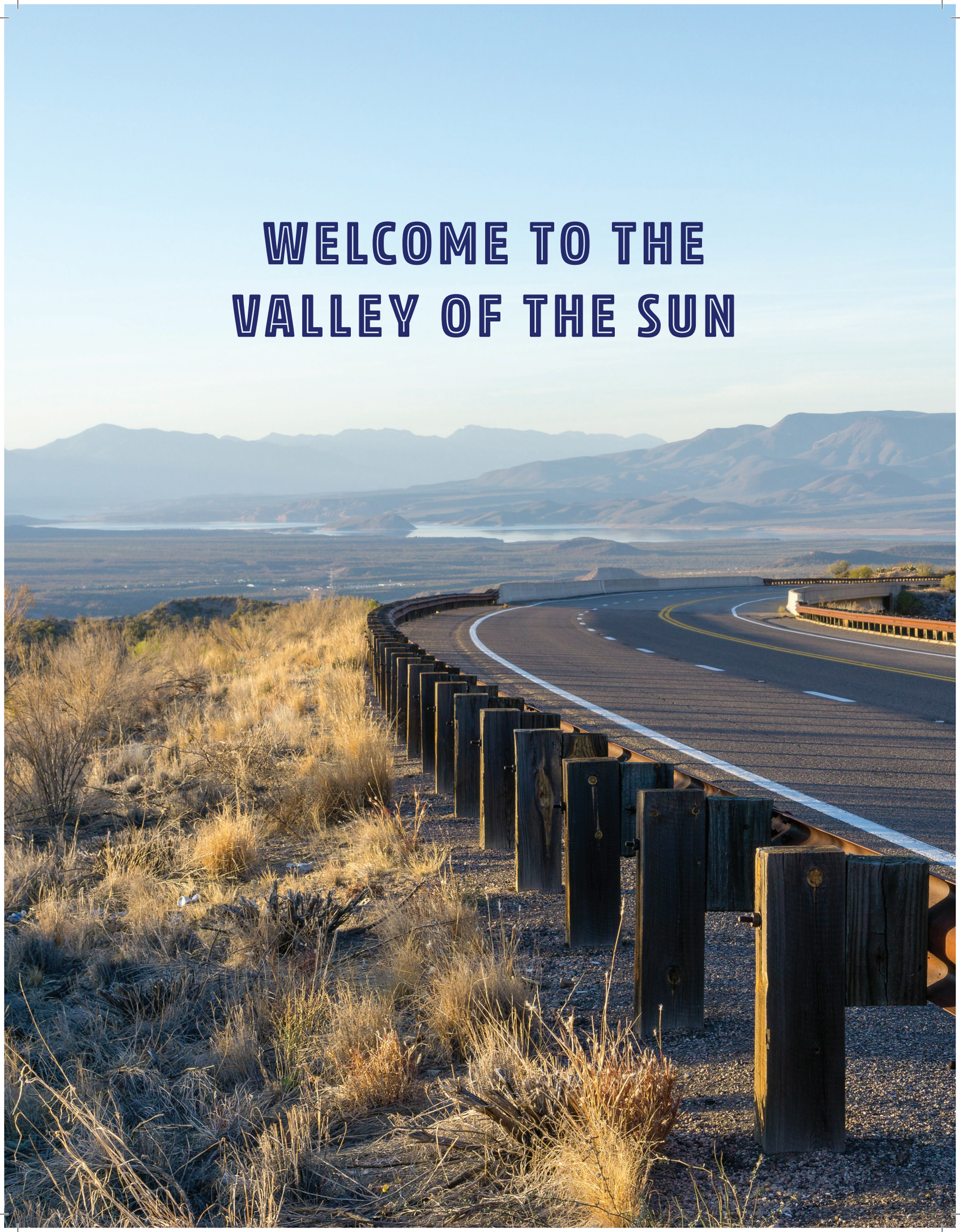
Wanco is the industry's leading manufacturer of highway safety and traffic control products. Innovation and new product development have made us what we are, and will continue to carry our reputation forward, well into the future.

Zetron (Booth 318)
Bill Cusack
bcusack@zetron.com
www.zetron.com

Zetron is a critical communications technology company providing integrated command & control solutions and information services with legendary reliability & support. For over 37 years, Zetron has delivered interoperable end-toend command & control systems across multiple industries and international markets. With over 25,000 console positions, 1,000 established resellers, and coverage in 70 countries, Zetron has established itself as the technology leader in connecting command centers with field personnel using radio and telephony technologies. Its solutions empower personnel with situational awareness by enabling console operators to provide them the right information at the right time.

Accessing the internet – SSID: Hotel Guest. No password is required.

EXHIBIT HALL FLOOR PLAN



WELCOME TO THE VALLEY OF THE SUN