



**2017 Joint Annual  
Meeting of AASHTO  
Subcommittee on  
Transportation Systems  
Management and Operations  
and  
Special Committee  
on Wireless  
Communications  
Technology**

AMERICAN ASSOCIATION  
OF STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS

**AASHTO**



**September 12-14, 2017  
Rapid City, South Dakota**

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**AGENDA**

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# 2017 Joint Annual Meeting of AASHTO Subcommittee on Transportation Systems Management and Operations and Special Committee on Wireless Communications Technology



SEPTEMBER 12–14, 2017 | **AGENDA**

## Tuesday, September 12

7:00 a.m.

**Breakfast** ..... Sylvan I

8:00 a.m.–Noon

**Transportation Systems Operations Working Group Meeting** | 4 PDH ..... Sylvan I

*Invitation Only*

10:00 a.m.–5:00 p.m.

**Registration** ..... Pre-Function

1:00 p.m.–5:00 p.m.

**STSMO Weather Workshop** | 3.5 PDH ..... Legion I/II

*This workshop will focus on activities underway in the road weather/winter maintenance arena that overlap with the mission objectives of the STSMO community. Topic areas will include the wealth of data in the weather data environment that can support network operations applications, road weather connected-vehicle deployments, weather responsive traffic management, decision support systems, and road weather integration into traffic operations centers. | Full agenda can be located on the back cover.*

5:30 p.m.

**Networking Reception** ..... Sylvan II

## Wednesday, September 13

6:30 a.m.–7:15 a.m.

**Breakfast** ..... Sylvan I/II

7:30 a.m.–8:00 a.m.

**JOINT: Plenary Session** | 0.5 PDH ..... Legion I/II

**Host State Welcome**

*Joel Jundt, Deputy Secretary, South Dakota DOT*

**Opening Remarks**

*Shailen Bhatt, Colorado DOT, Chair, STSMO*

*Russ Buchholz, North Dakota DOT, Chair, SCOWCT*

*Martin Knopp, FHWA*

8:00 a.m.–8:30 a.m.

**JOINT: AASHTO Committee Restructuring and  
Committee on Transportation System Operations** | 0.5 PDH ..... Legion I/II

*Jim McDonnell, AASHTO*

**Q&A**





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8:30 a.m.–10:15 a.m.

**CONCURRENT SESSIONS**

**STSMO**  
LEGION I/II | 1.75 PDH

**STSMO Focus Area 3—Traffic Incident Management Technical Advisory Group**  
Moderators: **Tim Lane**, Arizona DOT  
**Joey Sagal**, Maryland DOT

- Call for Membership Support Updates Since Our Last Call—July 2017
- FHWA ELG Update
- FHWA EDC 4 Update
- Arizona Secondary Crash Research
- Detailed Discussion of the Business Plan During TIM Session at STSMO Annual Meeting
- Open Discussion

**SCOWCT**  
BEAR BUTTE ROOM | 1.75 PDH

**Year in Review**

- Business Meeting Agenda Review & Kickoff | *Russ Buchholz, North Dakota DOT*
- TWG 1: Legacy Programs | *Paul Gilbert, Texas DOT*
- TWG 2: Spectrum Management | *Collin Castle, Michigan DOT*
- TWG 3: Cybersecurity | *Russ Buchholz, North Dakota DOT*
- TWG 4: Future and Emerging Technology | *TBD*
- Discussion: What initiatives should be considered for continuation?

**Discussion of Priority Activities**

- High-Priority Needs from SCOWCT Survey
- Program Areas:
  1. Land Mobile Radio/Legacy Programs
  2. ITS Field Devices—Fiber/Last Mile Communications
  3. CAV Communications Backbone—Infrastructure Deployment/Cybersecurity
- Discussion: P25 technology, FirstNet, Radio Frequency Program, Representation on National Committees, U.S. DOT/FCC policy (e.g., NRPMS), DSRC Licensing, CV/AV Deployment Support, Fiber Backbone, Cybersecurity, ITS Asset Management, Use of Available Spectrum, Best-Practices Sharing.

10:15 a.m.–10:30 a.m.

**Break**

10:30 a.m.–12:15 p.m.

**CONCURRENT SESSIONS**

**STSMO**  
LEGION I/II | 1.75 PDH

**STSMO Focus Area 2—Performance Measures**  
Moderator: **Tony Kratofil**, Michigan DOT

- PM3 (MAP-21 System Operations & Reliability Performance Measures) Rule Compliance & Analytical Tools
- Performance Measures Cross-Cutting for TSMO, Wireless Communications & Highway Transport
- Managing the Volume of Data

**SCOWCT**  
BEAR BUTTE ROOM | 1.75 PDH

**Planning for Future Wireless Communications Activities**

- Continue Discussion of High-Priority Activities
- Overview of Committee on Transportation System Operations (TSO) | *Gummada Murthy, AASHTO*
- Recap of September 12<sup>th</sup> Meeting
- What communications technology program elements should be considered for TSO?

12:15 p.m.–1:15 p.m.

**Lunch**

Sylvan I/II

# REINVENTING TRANSPORTATION IN OUR CONNECTED WORLD



TOP LEFT: Truck Parking Information and Management System, *Michigan* | TOP RIGHT: FDOT's Connected and Automated Vehicle Initiative Support, *Florida*  
BOTTOM LEFT: Omaha Dodge Street BRT, *Nebraska* | BOTTOM RIGHT: SunGuide® Regional Traffic Management Center Operations Support, *Florida*

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1:15 p.m.–3:00 p.m.

**JOINT: STSMO Focus Area 1—Systems Operations Strategies** | 1.75 PDH . . . . . Legion I/II

Moderators: Brad Freeze, *Tennessee DOT*  
Dean Gustafson, *Virginia DOT*

**2017 STSMO Survey Results Review**

**Operations Guidebook Project Update and Next Steps** | *Les Jacobson, WSP*

**Organizing and Planning to Support TSM&O**

- CMM Re-Evaluations
- Update on TSM&O Planning Efforts
- TSM&O Program Planning Roundtables

**New Framework for ITS Architectures (ARC IT)**

**Transportation Management for the I-85 Bridge Collapse/Repair** | *John Hibbard, Georgia DOT*

**Discussion—The Future of Traveler Information Systems**

**Systems Operations Strategies Focus Area—2-Year Work Plan Review**

3:00 p.m.–3:15 p.m.

**Break**

3:15 p.m.–5:00 p.m.

**JOINT: STSMO Focus Area 4—Connected and Automated Vehicles** | 1.75 PDH . . . . . Legion I/II

Moderators: Blaine Leonard, *Utah DOT*  
Collin Castle, *Michigan DOT*

**Opening Remarks** | *Blaine Leonard, Utah DOT*

**Overview of STSMO CAV Focus Area** | *Blaine Leonard, Utah DOT*

**Overview of SCOWCT Future and Emerging Technology Working Group** | *Collin Castle, Michigan DOT*

**Level 5 Automation—Deployment, Testing, and Legal Issues** | *Ed Bradley, Toyota*

**CAV Research and Policy Initiatives**

- NCHRP CAV Research Update (current and recently completed projects) | *Ray Derr, TRB*
- U.S. DOT Activities | *TBD*

5:15 p.m.–5:30 p.m.

**Depart for Host Night Event—Dinner and Mt. Rushmore**

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# Thursday, September 14

7:00 a.m.–8:30 a.m.

**Breakfast** ..... Sylvan II

## CONCURRENT SESSIONS

8:00 a.m.–9:45 a.m.

### STSMO

LEGION I/II | 1.75 PDH

#### Focus Area 5—STSMO Research Programs

**Moderators:** Galen McGill, *Oregon DOT*  
Scott Marler, *Iowa DOT*

#### NCHRP Update

- Update on Cyber Security for Traffic Management Systems | *Russ Buchholz, North Dakota DOT*
- NCHRP Updates | *Ray Derr, TRB*
- Update on Workforce for TSMO | *Tony Kratofil, Michigan DOT*

**FHWA Updates** | *Tracy Scriba, FHWA*

#### Operations Database

- Vision for Operations Database | *Scott Marler, Iowa DOT*
- NOCoE Updates | *Patrick Son, NOCoE*

#### Feedback

- Domestic Scan Concept | *Galen McGill, Oregon DOT and Dean Deeter, Athey Creek*
- NCHRP Research Concepts | *Galen McGill, Oregon DOT*

8:30 a.m.–9:45 a.m.

### SCOWCT

BEAR BUTTE ROOM | 1.25 PDH

#### DOT Member Updates

Round Robin (All)

#### SCOWCT members report on communications technology activities their organizations

- Name and job position
- Radio Communications: Current activities and plans (e.g. updates to technology or infrastructure)
- Communications to ITS Field Device: Noteworthy practices, challenges
- Connected Vehicles: Current or planned deployments, experience with DSRC Licensing

9:45 a.m.–10:00 a.m.

**Break**

## DID YOU KNOW?



NOCoE is hosting a **STUDENT COMPETITION** to have students submit an ePortfolio for the chance to win a trip to the 2018 TRB Annual Meeting.

## SPREAD THE WORD!

You can find the contest description and details on our website:

<https://www.transportationops.org/2018-trb-student-competition>

**AASHTO and the  
Subcommittee on Transportation  
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10:00 a.m.–Noon

**CONCURRENT SESSIONS**

**STSMO**  
LEGION I/II | 2.0 PDH

**STSMO Business Meeting**  
Moderator: **John Nisbet**, *Washington State DOT*

**Regional Operations Leadership Forums (ROLF)**

- Overview and Project Scope | *Gummada Murthy, AASHTO and Tracy Scriba, FHWA*
- State DOT Perspective | *Ryan Rice, Colorado DOT and Brad Freeze, Tennessee DOT*
- Proposed ROLF Task Force | *Ryan Rice, Colorado DOT and Gummada Murthy, AASHTO*

**NPRM for PM and PM Tools Discussion** | *Tony Kratofil, Michigan DOT*

**V2IDC Update** | *Gummada Murthy, AASHTO*

**Discussion**

**SCOWCT**  
BEAR BUTTE ROOM | 2.0 PDH

**Technical/Research Updates and Wrap-Up**

**Public Safety Radio Spectrum Management** | *Michael Henderson, RadioSoft, Inc.*

**NCHRP Research Updates:**

- Project 03-127: Cybersecurity of Traffic Management Systems | *Russ Buchholz, North Dakota DOT*
- Project 03-129 Essential Communications | *Stephan Parker, TRB*
- Project 20-7: ITS Communications Integration Needs for Legacy and Emerging Programs Including CV and AV | *Gummada Murthy, AASHTO*

**Future Communications Technology Activities—Review Priority Activities to Recommend for Continuation in TSO**

**SCOWCT Business Meeting Wrap-Up** | *Russ Buchholz, North Dakota DOT*

Noon–1:00 p.m.

**Lunch** ..... Sylvania I/II

1:00 p.m.–4:30 p.m.

**TSMO Strategies and NOCoE Resources in Action Peer Exchange** | 3.5 PDH ..... Legion I/II

Moderator: **Patrick Son, P.E.**, *Managing Director, NOCoE*  
Speakers: **Denise Inda**, *Chief Traffic Operations Engineer, Nevada DOT*  
**John Hibbard**, *Operations Division Director, Georgia DOT*

**TSMO Town Hall**

Ask questions to and discuss solutions with fellow operations leaders about ideas of institutionalizing and integrating TSMO in DOTs. This is your chance to come with that one question you’ve been wanting to ask and get a captive response from one of our TSMO leaders.

**Examples of Technical Services and Resources in Action**

NOCoE provide resources to help DOTs integrate TSMO strategies. A couple of examples include virtual peer exchanges to help TMCs transition to 24/7 operations and resources being developed to help TSMO workforce development.

**State DOT Technology Roundtable**

The roundtable discussion will focus on three topics:

- SPaT Challenge
- Traffic Incident Management in a CV world
- System Performance Measures and Analytical Tools

4:30 p.m.–5:00 p.m.

**Closing Remarks** | 0.5 PDH ..... Sylvania I

**John Nisbet**, *Washington State DOT*



# STSMO Weather Workshop

**SEPTEMBER 12, 2017 | 1:00 P.M.–5:00 P.M. | AGENDA**

Nearly 40% of non-recurring congestion is attributable to weather. Approximately 6,000 fatalities have weather as a contributing factor, and over 1 million vehicle crashes during weather events. The weather is a huge external factor that should be considered in network operation programs and plans. This Weather Workshop will explore the links between TSM&O and the weather and expose the participants to initiatives underway and implemented that improve transportation system operation during weather events.

1:00 p.m.–1:10 p.m. **Welcome** | *Paul Pisano, FHWA & Dave Huft, South Dakota DOT*

## **Weather and Operations**

1:10 p.m.–1:40 p.m. **Setting the Stage for Weather and Operations** | *Steve Cook, Michigan DOT*

1:40 p.m.–2:10 p.m. **FHWA Road Weather Management Program** | *Paul Pisano, FHWA*

- Weather Data Environment
- Pikalert
- Weather-Savvy Roads
- Integrated Modeling for Road Condition Prediction
- Road Weather Performance Management Tool
- CV-Enabled Weather Responsive Traffic Management Guidelines
- Road Weather Management CMF

2:10 p.m.–2:30 p.m. **Meteorologists in the TMC** | *Blaine Leonard, Utah DOT*

2:30 p.m.–3:00 p.m. **Break**

## **Applications of Weather in Operations**

3:00 p.m.–3:30 p.m. **MDSS and Advanced Forecasting** | *Dave Huft, South Dakota DOT*

3:30 p.m.–4:00 p.m. **Road Weather Management in Colorado** | *Ryan Rice, Colorado DOT*

4:00 p.m.–4:30 p.m. **Weather Responsive VSL Project** | *Galen McGill, Oregon DOT*

4:30 p.m.–5:00 p.m. **IMO and WRTM** | *Steve Cook, Michigan DOT*

**Closing and Charge to the Group** | *Paul Pisano, FHWA and Steve Cook, Michigan DOT*



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