

# **Connected and Automated Vehicles**

**September 13, 2017  
STSMO Annual Meeting  
Rapid City, SD**



# Overview

- AASHTO STSMO Connected and Automated Vehicles (CAV) Task Group
  - Blaine Leonard, Utah DOT
  - Greg Larson, CalTrans
  - Collin Castle, Michigan DOT
- AASHTO SCOWCT (Special Committee on Wireless Communications Technology)
  - Russ Buchholz, North Dakota DOT

# Agenda

- CAV Summary
  - Review of Strategic Goals
  - Summary of Recent CAV Activities
  - Overview of Upcoming CAV Activities
- Summary of Recent SCOWCT Activities
- Vehicle Automation Update
- Federal CAV Research & Policy Initiatives

# First Electric Traffic Light

- Lester Wire, Salt Lake City Police Officer
- 1914



# CAV Goals / Actions

## STSMO Strategic Goal #8

Encourage and facilitate the development and deployment of connected vehicle infrastructure and applications, including elements that support automated vehicle features.

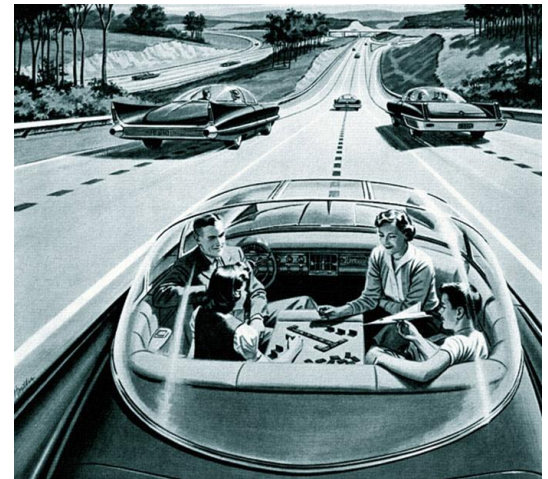
# CAV Goals / Action

## CAV Vision

“ . . .the recognized leader for state transportation agencies for information and collaboration on connected and automated vehicle deployment and impacts, and the voice for those entities . . . ”

# CAV Challenges

- This is NEW (relatively)
  - Changing Paradigms
  - Different skill set
  - New tools & resources
- Rapidly evolving
- Diverse (and changing) stakeholders & partners



# Related CAV Groups

- AASHTO SCOP CAV Task Force
- V2I DC (AASHTO / ITE / ITSA / FHWA)
  - Working Groups
  - SPaT Challenge Committees
  - IOO/OEM Working Groups
- CV PFS (about 20 states / local agencies)
- TRB Vehicle-Highway Automation Comm



# Related CAV Groups

- ITE
- ITS America
- AAMVA
- ASCE T&DI
- Probably (certainly) others . . .

# CAV Goals / Action

- CAV Goals
  - Support SPaT Challenge and other V2I DC Activities
  - Provide Members with Comprehensive information about CAV
  - Support State DOT's in CAV efforts
    - ❖ Existing members / invite new ones
  - Provide Updates to DOT Executives

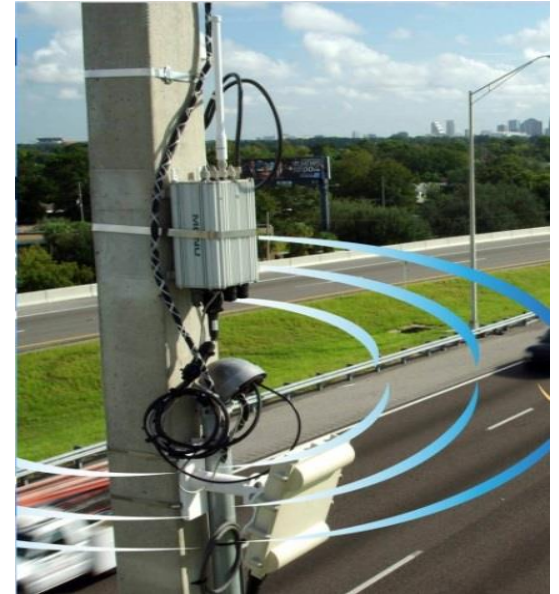
# CAV Focus Area Activities

- Updates from Related Groups:
  - V2I DC
    - ❖ SPaT Challenge
    - ❖ IOO / OEM Meetings
    - ❖ Transition to Phase 2

# The SPaT Challenge

Challenge state and local public sector transportation Infrastructure Owners & Operators (IO&Os) to **deploy DSRC infrastructure with SPaT (and MAP) broadcasts** in at least one coordinated corridor or network (approximately 20 signalized intersections) in each state by January 2020.

Additional V2I Applications that build on SPaT are also encouraged!



**20 Intersections in 50 states by 2020!**

# The SPaT Challenge

## Why this Challenge?

To provide IOOs with an entry into DSRC-based V2I deployment allowing them to gain valuable procurement, licensing, installation, and operation experience, which in turn will:

- Lay the ground work for more advanced V2I deployments
- Show a commitment to OEMs and applications developers



# SPaT Challenge Resources

**NCoE** National Operations Center of Excellence  
Your Transportation Operations Resource



[www.transportationops.org/spatchallenge](http://www.transportationops.org/spatchallenge)

# SPaT Challenge Resources

| SPaT Challenge Resource                     | Status               |
|---|----------------------|
| DSRC Licensing Information                  | On-line / Available  |
| Guidelines for Selecting Corridors          | On-line / Available  |
| Implementation Guidance                     | On-line / Available  |
| SPaT Challenge Folio                        | On-line / Available  |
| SPaT Challenge FAQs                         | On-line / Available  |
| SPaT Challenge Estimated Costs              | Draft Being Reviewed |
| SCMS & The SPaT Challenge                   | Draft Being Reviewed |
| Standards Versioning Management             | Draft Being Reviewed |
| Simple Steps to Deployment – Resource Guide | Draft Being Reviewed |
| Specifications & Requirements               | In Development       |
| Procurement Guidance                        | In Development       |

# CAV Focus Area Activities

- Updates from Related Groups:
  - V2I DC
    - ❖ SPaT Challenge
    - ❖ IOO / OEM Meetings
    - ❖ Transition to Phase 2
  - Maintenance and Road Weather Activities
  - AASHTO SCOP CAV Task Force Update
  - NCHRP 20-102: State and Local AV/CV Policies



# CAV Focus Area Activities

- NHTSA NPRM on V2V (and comments)
- Recap of ITS World Congress (Melbourne)
- AV Policy Updates
  - NHTSA AV Policy (and comments)
  - California AV Legislative Overview
  - Michigan AV Legislative Overview
- Outreach to State DOTs / Determine Needs

# CAV – Moving Forward

- Support SPaT Challenge
  - And other V2I DC Activities
- Support State DOT's in CAV efforts
  - Share Best Practices
  - Discuss developments / policy issues
  - Outreach
- Coordinate with Other Groups
- Look for Opportunities to Advance CAV

