AGENDA

Truck & Bus Technology Subcommittee ACS60(5)

January 6, 2025

1:30 PM – 3:15 PM EST

Marriott, Mt Vernon Sq (M3)

Type of Meeting: Annual Subcommittee Meeting

1:30 – 1:45 **Introductions**

1:45 – 2:00 **Review of Past Research Needs**

See notes below agenda | *Abby Morgan, Kittelson & Associates*

2:00 – 2:50 **Guest Presentations**

2:00 – 2:20 | ***Chan Lieu, Senior Manager of Safety Programs and Standards, Aurora***

Aurora's vision for safety and updates on 2025 deployment plans

2:20 – 2:40 | ***Jianming Ma, Traffic Management Section Director, Texas DOT***

Texas DOT's Connected Freight Corridor and other safety programs

2:40 – 2:50 | ***Q&A***

2:50 – 3:10 **Work Session: Brainstorming New Technology Research Needs**

Identify new research needs. Volunteer to champion developing a formal Research Needs Statement.

3:10 – 3:15 **Wrap Up**

For your reference:

Research Needs identified in past Technology Subcommittee meetings:

- **Connecting electronic logging device (ELD) data with real-time truck parking availability data.** Identify ways to link state DOT real-time data on truck parking availability at rest stops with ELD data to alert drivers about parking availability related to their remaining hours of service. Mandatory hours of service (HOS) requirements specify how long commercial

drivers can work before taking rest breaks. Truck parking availability is an issue for the safety of drivers and the motoring public. Many states are starting to collect real-time truck parking occupancy data at public rest areas. This information is typically shared with drivers using dynamic message signs in advance of the rest areas. However, if trucks are poorly parked, the physical number of available parking spaces may be less than the count. Connecting parking data with ELD data could help drivers learn of overcapacity issues at their estimated rest area. For example, if one hour of driving remains, and parking at a rest area 60 miles down road is full, drivers could make the informed decision to stop at a closer rest area to ensure they find a safe place to park for a mandatory rest break. How can we make truck parking availability data accurate so drivers can rely on it to meet ELD or Hours of Service requirements? What are the opportunities and challenges for also connecting private parking facility data where available? How can we develop standard APIs for sharing information similar to Work Zone Data Exchange? (Coordinate with FMCSA and FHWA research offices. Collaborate with ACS60 Data Subcommittee.)

- **Trip-Level Safety Data**. As we study truck safety, consider understanding the influence of hours into a trip (or into total hours of service for a shift), rather than studying averages over total miles traveled. Many factors influence safety that might not be constant over all miles or throughout a shift.

- **Driver Education on Levels of Automation for Commercial Driver License (CDL) Training**. Develop a training program to teach drivers the capabilities and limitations of each Level of Automation or of specific advanced driver assistance systems (ADAS).

- **Smart Trucks and Dumb Trailers: Understanding the safety of automated tractors and low-tech trailer combination units.** As advanced driver assistance systems and automated driving systems enter the market through new truck tractors, how do these systems perform in the real-world when pulling trailers that do not have new sensor and communication technologies?

- **Safe Transitions Between ADS and Human Driving Responsibility for Level 3 Automation**. How do you safely reengage a driver in a SAE Level 3 vehicle? Overcoming driver distraction or fatigue from inattentiveness.

- **Vulnerable Road User (VRU) safety needs** related to truck size and weight, Safe Streets for All (grant programs), and heavy vehicle conspicuity.

- **New data to study:** FMCSA's Large Truck Crash Causation Factors Program (LTCCFP) collected crash data that includes different advanced safety technologies like electronic stability control (ESC) and automatic emergency braking (AEB).

- **ADAS False Positives / False Activations** – How prevalent are they? When do they happen?

- **What are the next Crashworthiness technologies?**