

Safety Subcommittee Meeting

November 20, 2018

Attendees:

- Iowa DOT: Donna Matulac, Adam Shell, Steve Gent
- University of Iowa: Dan McGehee, Omar Ahmad, Anna Dizack
- Iowa State University: Neal Hawkins
- Iowa Department of Public Safety: Roxann Ryan
- Iowa State Patrol: Jeff Ritzman
- AAA - Wisconsin/Minnesota/Iowa/North Dakota: Nick Jarmusz

Action Items:

- Subcommittee – send Anna Dizack additional ideas for Safety Subcommittee members by the end of December. Anna will be investigating and reaching out to potential additional members soon.
- Anna to look into inviting Subcommittee members from:
 - Representative from trucking industry
 - Motor vehicle enforcement
 - Someone from Sherriff's office (impact on local roads)
 - Iowa State Sherriff's and Deputies' Association
 - Org for Chiefs of Police
- Anna – send subcommittee meeting invitation to Iowa Advisory Council on AT meeting next week, in case anyone would like to attend.
- Anna – will include subcommittee on demo day invitation at NADS anticipated for January.

Meeting Notes:

Key safety questions

- Jeff – When there is a crash with AVs, who's responsible? They started with their tech investigations personnel. For the next 5-10 years, that will be important. In the next 10-20 years, very, very important.
- Jeff – start looking at areas where there's a better infrastructure than what we have for best practices in operation of AVs. Some of our best practices may come from overseas initially. There are some who are ahead of the curve than us.
 - Down the road – enforcement of legal questions we need to address. Violation by AV – a criminal or civil matter? Reach out to lawyers for these types of questions.
 - What steps do we need to take to be ready for these types of investigations?
 - Dan – we have key partnerships in the UK that can help us address. Our governor has not taken an economic dev mission to Sweden (could meet with infrastructure people in Sweden to talk about these things). They're very open in discussing the challenges. Some of the smaller companies (e.g., Daimler – pretty frank in discussions). This mission would be important, instructive.

- Roxann – agrees. Another concern she has is the questions of culpability. The human element is frequently the biggest problem. But will also run into mechanical/non-human problems as well. Need to find ways to adjust. Law hasn't kept up with changes in technology. One of her concerns is accountability – how do we define accountability when we talk about AVs? Don't want to necessarily always leave it to trial lawyers to figure out how to share responsibility.
 - Dan – as part of the AVPG designation (now cancelled on the fed level) – had legal connections. Could use this subcommittee as a vehicle to understand, in depth, legal opinions in this area. Bryant Walker-Smith – probably most well-known in the legal/AV area.
- Dan – lane keeping systems rely on good paint. A company was doing quiet testing of AVs told Iowa that the paint was so bad the systems stopped working. Some states are forgoing painting to save money each year – this could mean legal issues. In Sweden, some paint twice a year for AVs.
 - Steve – yes, surprised on this. At one location there wasn't a line and it was a good education for them to be made aware of. Black filling of pavement can impact this, too. They are much more aware today than in the past.
- Roxann – as people are moving toward AVs, during that transition period we'll have lots of legal issues regarding roadways and demands.
- Adam – been talk about more efforts for pavement markings, data management and collection, as well as standardization on how we apply them. May want to collect data
- Donna – no standard put out there yet for maintaining pavement markings. Signing – is there certain signing or things on the signs that need to be done different for detection by vehicles. It's a huge financial impact for all of the states. Need to be consistent nationally.
- Nick – AAA research/efforts has been focusing on consumer knowledge of these systems, making sure consumers aren't confused by or over-estimating what these systems do. Could lead to backfiring on the safety end, where people believe these systems can do more than what they can (ex. Autopilot). AAA could help play a role in this area. It will take a collaboration of a lot of different voices.
- Neal – near-term challenges. We have mixed fleets people will be dealing with. DOTs aren't typically building new facilities to carry AVs. There's no national vision, goals for milestones in being connected.
 - Iowa DOT is a little ahead of the game on pavement markings. ISU is helping in this effort. Scarring from paving processes is another concern, in addition to fading for camera-based systems.
 - Speed – what speeds can they operate? Consumer knowledge can't be understated, especially with young kids getting in these cars and trying things.
 - Keeping our emergency responders and others safe in this mixed environment – how do we shut them down, pull them over, etc.? Areas we need to be thinking about for use case.
 - With connected vehicles – can we do better in alerting for weather? Additional information out beyond that sensing area?

- How do these vehicles work in construction areas?
- Interesting to think about release of control. Where does transfer of control happen (areas)?
- Short-term, mixed fleet
- Steve – Conversation about AVs being conservative. How do they handle areas that aren't clear cut. Most common type of crash is a rear end crash. AVs won't sneak around vehicles, will stop. But sometimes you need to be aggressive when driving, need to speed up to get ahead of others on ramps.
 - Infrastructure – once there are national standards, we feel comfortable we can meet those. Are more concerned with weather conditions. Can't see pavement markings in snow, heavy rain.
 - Move Over Law – whenever a police officer has someone pulled over, we expect people to slow down and move over.
- Neal – Railroad crossing on Duff in Ames – AEB reacted more quickly than the human said they would. Train tracks and places like that might be places that surprise.
- Dan – in Bay Area – drive around and will see dozens of AVs being tested. They are hesitant and will interfere with regular traffic. Sometimes put their flashers on, can't understand when cars are pulled over.

Suggestions for additional safety subcommittee members

- Steve – Representative from trucking industry
 - Dan – motor vehicle enforcement?
- Roxann – someone from Sherriff's office to talk about impact on local roads
 - Iowa State Sherriff's and Deputies' Association
 - Org for Chiefs of Police
- Anna to investigate. Subcommittee to send ideas, if they think of them.

Subcommittee Chair

- Jeff Ritzman is Subcommittee Chair.

Iowa Advisory Council on AT Meeting in November

- Anna to send subcommittee meeting invitation – welcome to attend.