

State of Maine
Commission on Autonomous Vehicles
Meeting Minutes

September 5, 2018 - MaineDOT HQ - Augusta

Attending: Parker O'Brien, Kara Aguilar, Herb Thomson, Greg Jordan, Larry Boivin, Bruce Scott, Tom Lynch, Brian Guerrette, Lauren Stewart, Amy MacMillan, Jonathan Rubin, Frank Niles, Rebecca Grover, Brian Parke, Jon Jennings, Avery Ash, Scott Rollins, Jennifer Grant

Minutes

There were no changes to the minutes of the August 1, 2018 meeting.

Vision for, and status of, City of Portland Autonomous Shuttle Project

Guest: Jon Jennings, Portland City Manager, and by telephone, Avery Ash of INRIX

- A transportation challenge that needs to be addressed is to better manage congestion resulting from continued growth along Commercial Street. Corporate HQs and new businesses are coming to Portland. This area is already congested, and the city is looking for ways to mitigate traffic congestion and for solutions to parking needs.
- An autonomous shuttle pilot in two defined corridors may be part of the solution to these challenges. The two corridors are:
 1. Franklin Street (From I-295 to the Ferry Terminal)
 2. West Commercial Street
- The city of Portland is one of seven selected for AV Road Rules platform (INRIX) pilot project
- City leadership is working to position the city as an innovation hub and to attract jobs/economic development

Guest by telephone, Avery Ash of INRIX

- Mr. Ash provided some background on INRIX and on himself.
- INRIX was startup company began at Microsoft (INRIX has been around for about 10 years)
- Mr. Ash was tasked with building out the driverless vehicle strategy
- HAV operation typically relies on sensors and environment, as well as complex, expensive, and not entirely accurate systems of machine learning and computer vision. Human operators must correct anywhere the system gets it wrong. Wouldn't it be easier if the city could tell the vehicle manufacturer the rules?
- INRIX started its mapping work in Boston and then expanding to more cities—digitizing road rules. The company soon began to expand the project beyond Boston to a handful of other cities (LA, Austin TX, Cambridge MA, Transport Scotland, and now, Portland ME)
- The INRIX pilot project entails a portal (online platform) for a city user or road-authority user to go into a graphic interface of what the road system looks like. This includes digitizing traffic rules. The objective is to lay a foundation for the time when HAVs are operating on public roads.
- For Portland, this is a requisite step to prepare for testing HAVs on public roadways

Discussion

Portland staff is using the INRIX platform tool to digitize their street rules

- Three city engineers are working to digitize the rules on these two defined corridors (Franklin and Commercial Streets, as a first step. A goal will be to map the entire city at some point)
- Information will then be provided to providers (e.g., Metro)

The city will consider two possible approaches:

1. Publish an RFI—then an RFP. This would potentially involve a six-month to year-long pilot test. The city would bring in low speed HAV shuttles and run them on defined routes. Interested vendors would bid, and then vehicle operators would be chosen.
2. LA and Boston already have companies in their footprint who are testing their technologies (not for commercial usage) on public roads. This is another potential route approach.

In Portland, an RFI/RFP process is the most likely avenue for getting a pilot project up and running.

The INRIX pilot is basically laying the groundwork, then the city would partner with a vendor to set up a pilot operation. There are many hurdles to jump over (state regulation, public safety, etc.) – even though the city would like to digitize and move quickly to a pilot project, they realize they need to work with the state to get there

It will be important to conduct a community engagement process, public education, etc. Generally, public engagement would be led by the municipality.

There are various ways for vehicles to communicate to passengers (audio cues, visual displays, etc.) But cities like Portland may want to add design for how vehicles interact with their customers. (e.g., provide different audio/visual cues for passengers, pedestrians outside the vehicle and other vehicles—features that aren't normally installed during manufacturing.)

Portland will be holding a public meeting on the concept of HAVs on Sept. 27th from 5-7:30 at East End School in Portland. This will include participants from BMW, the National Federation of Blind, AAA, the city of Boston, and others. The meeting will be an opportunity for people to ask questions and for the city to follow up on the summer announcement.

Q/A and Further Discussion

In the INRIX environment, are vehicles communicating with open API (application programming interface), and do they require connectivity?

No. Updating, other sources of data, error corrections, etc., could be complex. It's up to the vendor to implement the API however they choose, at this point. For the initial pilot, there are about a dozen basic rules that were chosen as the "most critical to implement." (These are basic traffic restrictions) The next step is to expand on these.

The city of Portland is considering broader implementation of real-time applications, and providing useful real-time information to the public (e.g., regarding parking availability).

Who is responsible for verifying the data? Who is legally responsible? The platform is not a substitute for current HD maps. Vehicle operator's HD map and on-board cameras are a backup – always follow the safest rules (i.e., if two of three sources say there is a stop sign, it will stop and flag that area for review)

What does the city and INRIX need from this group? Possibly examine what laws need updating. State law indicates that a human driver is required but statute doesn't come straight out and say that (define: operator). Review of statutes would be necessary.

Discussion of winter conditions—road closures, parking bans, handicap accessibility, bus sizes (will they expand to larger 16+ passenger vehicles?)

Maine's Long-Range Transportation Plan

Guests: Scott Rollins and Jennifer Grant, MaineDOT

- The proposed plan, required by FHWA and FTA, will look out to year 2050
- Two documents will be created:
 1. A shorter, 'executive summary-type' document
 2. And a longer version that includes all of the supporting documentation
- The department's goal is to complete plan by end of 2018
- The process includes a Long-Range Transportation Plan survey
 - Some trends that impact transportation were identified

- In light of these trends, several goals for the transportation system were proposed
- Next, various strategies to achieve the goals are proposed
- Survey takers are asked to prioritize the trends, and express preference for the goals and strategies to address those trends
- The introduction of connected and autonomous vehicles is a significant development for the future of transportation.
- Commission members are invited to take the survey: www.mainedot.gov/longrangeplan

Updates Around the Table

Herb proposed that continued discussion of an application process be main agenda item for the October 3 meeting.

Please forward to Herb any additional agenda items.

Adjourn