



STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN
SECRETARY

**Advisory Council on Connected and Autonomous Vehicles Meeting
(Executive Order 14)**

Thursday, January 18, 2018
11:00am – 12:30pm
DelDOT Administration Building, 800 Bay Road, Dover, DE
Farmington/Felton Conference Room

MINUTES

1. Welcome and Introductions

- a. The meeting commenced at 11:04 AM. N. Majeski introduced herself and indicated she would be representing Secretary Cohan at this meeting. She then directed Advisory Council members and attendees to introduce themselves.

Present Voting Council Members

Barzilai Axelrod	Attorney General's Office
Ruth Briggs King	House of Representatives
Patty Cannon	Division of Small Business, Development and Tourism (DOS)
Glenn Dixon	Delaware Department of Safety and Homeland Security (DSP)
Jerome Lewis	University of Delaware (UD) Institute of Public Administration
Stephanie Hansen	State Senate
Leslie Ledogar	Insurance Commissioner's Office
Reed Macmillan	Dover/Kent Metropolitan Planning Organization
Terry Megee	Delaware Automobile and Truck Dealers' Association
Ed Osienski	House of Representatives
William Pfaff	Sussex County
Cathy Rossi	AAA Mid-Atlantic
Shari Shapiro	Uber
Elayne Starkey	Delaware Department of Technology and Information (DTI)
Scott Vien	Division of Motor Vehicles (DMV)

Members Present by Proxy

Nicole Majeski	DelDOT (Proxy for Secretary Cohan)
Keri Rapa	State Senate (Proxy for Senator Pettyjohn)



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Tigist Zegeye WILMAPCO (Proxy for John Sisson)
 Tarik Zerrad Alliance of Automobile Manufacturers (Proxy for Renee Gibson)

Also Present

Patrick Wenk	Delaware Department of Safety and Homeland Security (DSP)
Philip Barnes	University of Delaware (UD) Institute of Public Administration
Chris Kelly	University of Delaware (UD) Institute of Public Administration
Barry Benton	GPI
Steven Chillas	Delaware OMB – Contracting
Barbara McCleary	Delaware OMB—Department of Human Resources
Wendy Carpenter	Davis, Bowen, & Friedel, Inc. (DBF)
Joe Zilcosky	DOS
Leah Gallagher	DOS
Lisna Utami	DOS
Lisa Goodman	Hamilton Goodman Partners, LLC – Uber
Scott Clapper	DMV
Li Wen Lin	DeIDOT—Technology and Innovation
Shante Hastings	DeIDOT
Mark Luszc	DeIDOT
Gene Donaldson	DeIDOT
Pat Kennedy	FHWA
Jen Duval	Jacobs
Erin Coombs	Jacobs
Megan Rosica	Jacobs
Peter Bourne	KCI Technologies
Matt Buckley	WRA
Jason Walsh	Price Auto Group
Adam Weiser	AECOM
Ken Grant	AAA Mid-Atlantic

Absent Voting Council Members

Jennifer Cohan	Delaware Department of Transportation (DeIDOT)
Lee Derrickson	Delaware Motor Transport Association (DMTA)

2. Approval of the Previous Meeting Minutes

- a. E. Starkey made a motion to accept the minutes from the previous meeting held on December 21, 2017. Motion was seconded by S. Vien. Motion passed and minutes were approved.



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3. Updates on Subcommittees

- a. N. Majeski notified attendees that a website has been created for the Advisory Council and that information regarding meetings and materials is available on the site. The website can be accessed using the following link:
<https://www.deldot.gov/Programs/autonomous-vehicles/>
- b. Promoting Economic Development
 - i. First meeting was held January 18, 2018 at 9:30 AM.
 - ii. Discussion was focused around the following topics:
 1. Policy and code changes that may be needed to promote economic development in regards to CAV in Delaware.
 2. Potential incentives for using CAV and opportunities for the creation of jobs.
 3. Making Delaware a testing ground for CAV in order to gain recognition.
 4. Being aware of impacts CAV may have moving forward and being prepared for the future.
- c. Technology, Security, and Privacy
 - i. Meeting held January 18, 2018 at 8:30 AM.
 - ii. Discussion facilitated by B. McCleary included the following:
 1. Issues and unknowns surrounding CAV technology, security, and privacy.
 2. Focusing on a more detailed scope and mission for the subcommittee.
 3. A draft charter for the subcommittee, including key deliverables and target outcomes, will be ready for submission to the Secretary by the February monthly meeting.
 4. A representative from the DOJ was added to the committee, as well as a representative from the private sector of cybersecurity.
- d. Transportation Network Infrastructure
 - i. First meeting to be held February 1, 2018.
- e. Impacts on Public and Highway Safety
 - i. First meeting was held January 8, 2018 at 1:00 PM.
 - ii. Discussion included the following topics:
 1. A presentation by M. Luszcz on DelDOT's Strategic Highway Safety plan and the impacts CAV will have on Delaware's safety-related issues.
 2. Future discussion to include topics such as policies, infrastructure design, legal aspects, enforcement, crash investigations, public acceptance, insurance benefits, pedestrian safety, and driver education.



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3. It was decided that the committee's discussion and reports will follow a structure based on the Society of Automotive Engineers (SAE) Levels of Driving Automation.
 4. A representative from Delaware Criminal Justice Information System (DELJIS) was added to the subcommittee.
- f. P. Cannon asked a question regarding the communication between subcommittees as implementation of CAV technology develops moving forward, specifically having to do with the recommendation of a pilot program.
- i. N. Majeski responded that as these technologies develop there will need to be increased communication between subcommittees, given that topics in CAV will often overlap.
 - ii. A discussion occurred surrounding these topics:
 1. Many factors would need to be considered before a pilot could be implemented, such as the location (controlled environment vs. populated roadway), insurance, code/regulations, etc.
 2. Current testing is occurring in other states (e.g. Waymo /UBER passenger vehicles, AAA shuttle bus in Las Vegas).
 3. Public education will be crucial to gain acceptance and mitigate fear.
 - iii. N. Majeski assigned an action item to Jacobs to compile information on surrounding state legislation relevant to CAV testing and implementation and share with the Advisory Council.

4. Presentation by UBER

- a. S. Shapiro gave an overview of UBER's status in the development of autonomous vehicles (AV).
 - i. UBER is already testing self-driving vehicles with passengers on public roads. The company has testing locations in San Francisco, Pittsburgh, Toronto, and Phoenix.
 - ii. A number of economic development opportunities are associated with AV implementation; for example there are 750 engineers and vehicle operators working in Pittsburgh.
 - iii. UBER focuses on the following areas of development as they implement AV testing: safety, scalability, mapping, hardware, vehicle programs, and operations.
 - iv. AV Testing involves three steps: offline testing of the software, closed-course testing, and on-road testing. S. Shapiro shared a video of a self-driving UBER which can be accessed at the following link:
<https://www.youtube.com/watch?v=YKQ-6YnrKNc>



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- v. S. Shapiro noted the need to consider opportunities in AV technologies, other than in passenger vehicles; for example self-driving trucks for transporting goods.
- vi. Benefits of self-driving fleets were reviewed and include improved safety, increased efficiency, decreased congestion, beneficial environmental impacts, urban development opportunity and increased accessibility.
- vii. Policies to improve AV utilization may include road/congestion pricing, urban HOV lanes, smart pricing for off-street and curbside parking, parking maximums instead of minimums as part of building code policy, in-lieu parking fees and parking cash outs.
- b. J. Lewis asked about the possibility of a self-driving vehicle demonstration in Delaware.
 - i. N. Majeski responded that DelDOT anticipates having a demo later this year for the council.
- c. S. Vien asked about testing being done by UBER in Delaware.
 - i. S. Shapiro responded that UBER has not mapped Delaware yet and therefore a demo by the UBER self-driving vehicle is not yet possible.
- d. T. Megee raised a concern about glitches in electronic systems, like satellite radio, when a vehicle travels in areas with weak network connection.
 - i. S. Shapiro responded that mapping mitigates this issue and the autonomous vehicle will be able to operate under all circumstances and will not depend on the existing infrastructure. Even if there is limited connection, it is intended that the vehicle will be able to navigate.

5. Topics of discussion for the next meeting:

- a. NHTSA *Automated Driving Systems 2.0 A Vision for Safety* Report
- b. Opportunities for Delaware to implement AV technologies

6. Public Comment

- a. There were no additional comments from the public.

7. P. Cannon made the motion to adjourn the meeting and was seconded by S. Vien. The motion passed and meeting adjourned at 12:11 PM.

Action Item Summary

- 1. Jacobs to compile information on surrounding state legislation relevant to CAV testing and implementation and share with the Advisory Council.