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The Honorable Elaine Chao
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building
Washington, DC 20590

The Honorable Michael Kratsios
U.S. Chief Technology Office
Office of Science and Technology Policy
1650 Pennsylvania Ave., N.W.
Washington, DC 20504

**RE: Ensuring American Leadership in Automated Vehicle Technologies:
Automated Vehicles 4.0 (Docket No. DOT-OST-2019-0179)**

Dear Secretary Chao and Mr. Kratsios:

Thank you for the opportunity to provide comments on “Ensuring American Leadership in Automated Vehicle Technologies: Automated Vehicles 4.0” (AV 4.0). State Farm has a long history of advocating for the improvement of auto and highway safety for the benefit of its customers and the general public and recognizes the work of the U.S. Department of Transportation (DOT) and Office of Science and Technology Policy in seeking to balance innovation and safety considerations.

State Farm has been the nation’s largest auto insurer for over seventy-five years, with over 40 million auto policies in force. Its 19,000 agents and more than 55,000 employees serve more than 80 million policies and accounts. While State Farm provides over a hundred product lines, the majority of its over \$70 billion annual revenue comes from auto insurance. Automated vehicle technology will significantly impact how insurers protect policyholders from financial loss and risk. To the extent these advancements enhance auto and highway safety, State Farm is excited about and supportive of these technologies.

State Farm has almost a century long heritage of innovation. Throughout its history, State Farm has supported technology advancements that improve safety for the benefit of our customers, including seatbelts, airbags, and child car seats. State Farm supports developments that have the promise of saving lives and avoiding injuries, including higher levels of automation associated with automated vehicles. While automated vehicles will reduce or eliminate some risks that drivers face today, they will still need protection from the unexpected.

In providing these comments, State Farm takes a data driven approach based on its active role in collaborative, multi-industry conversations and research. For example, State Farm has a unique

public-private relationship with the University of Michigan called MCity, providing early access to the latest data and research findings in the area of connected and automated ecosystems. State Farm is also a key partner in Stanford University's Center for Automotive Research and last year worked on automated vehicle data issues with Carnegie Mellon.

In 2019, State Farm became the first insurance company to partner with the Arizona Institute of Automated Mobility (IAM). This consortium, which was established by executive order of the Arizona Governor, includes experts from private, public, and academia who focused on advancing research in automated vehicle science, safety, and policy. IAM will focus on a number of issues including creating facilities for complex research and testing, simulation labs, and research on infrastructure and its relation to automated vehicles.

State Farm was the only insurer to be appointed to the U.S. Department of Transportation's Advisory Committee on Automation in Transportation. State Farm also conducts automated vehicle research at its Vehicle Research Facility and Technology Research and Innovation Laboratory. Last year, State Farm partnered with the Governors Highway Safety Association (GHSA) to convene a multi-stakeholder workshop to address automated vehicle safety issues.¹ Earlier this year, State Farm partnered with the Illinois Department of Transportation, the Illinois Department of Commerce and Economic Opportunity, and the Illinois Autonomous Vehicle Association to host a Framing the Future of Mobility Workshop to lay out the best way for Illinois to approach mobility and transportation issues.²

In regards to AV 4.0, State Farm offers the following comments on the document and considerations for future guidance:

a. Whole of Government Approach

State Farm supports the continued focus on safety and understanding that the best way to reach this goal is to adopt a "whole of government" approach. State Farm appreciates AV 4.0 highlighting all the different federal government agencies and recognizing the interplay between these agencies as automated vehicle guidance and regulation continues to evolve. The DOT can also play a vital role in helping the various federal agencies better coordinate their work to help make sure many of the vital issues impacting automated vehicles are appropriately addressed. State Farm also encourages the DOT to continue to recognize the role state and local governments play in the development of automated vehicles.

b. Crash Data

Data access is a key issue for the insurance industry. State Farm appreciates AV 4.0 making reference to data issues outlined in the DOT's AV 2.0 and 3.0 guidance documents (which reflected input from State Farm) and recommends that future versions of the DOT's guidance continue to address this matter.

Data access is (1) essential to developing proper pricing and underwriting of vehicles, (2) critical for liability determinations, and (3) from the general public's perspective, important in determining the safety and reliability of technology. Insurers should have access to automated driving system

¹ "Governors Highway Safety Association" Automated Vehicle Safety Expert Panel: Engaging Drivers and Law Enforcement (2019) (<https://www.ghsa.org/resources/AV19>)

² "Framing the Future of Mobility: State Farm Drives Technology and Transportation Conversation" (<https://newsroom.statefarm.com/framing-the-future-of-mobility/>)

information and data – including crash accident and incident information and data – that is timely, complete, and useful. It is important to note that access to data does not infringe on the proprietary nature of that data and the access is relevant to specific issues of, for example, underwriting and liability, as opposed to the wholesale collection of all data associated with a vehicle. In addition, data access should be standardized to the extent that all providers are sharing data the same way.

State Farm’s position, consistent with the spirit of AV 4.0, is that future DOT guidance can be a starting point for creating a framework for data access. The principles for this data access framework can include:

- Focusing primarily on relevant data variables to help show the technology is safe, help determine liability (including exonerating manufacturers in many cases), and allow insurers to properly underwrite and develop products to help insure this technology.
- Exploring the appropriate process to obtain the relevant data (i.e., data exchange, event data recorder).
- Respecting proprietary data and identifying relevant data variables that are consistent with the types of information collected today in vehicles and made accessible to insurers and other third parties.

It is important to note that self-driving data access is a key issue for numerous stakeholders. The American Association of Motor Vehicle Administrators (AAMVA) issued its “Jurisdictional Guidelines for the Safe Testing and Deployment of Highly Automated Vehicles” highlighting in a number of sections the need to make crash related data available to law enforcement and other parties.³ In addition, in the GHSA Automated Vehicle Safety Expert Panel: Engaging Drivers and Law Enforcement workshop, data access was also highlighted as a critical issue for law enforcement and other stakeholders.

An additional element to consider with evaluating crash data is what type of automated components are part of the automated vehicle. One consideration to help address this issue is encouraging the development of a Vehicle Identification Number (VIN) process that helps identify the level of automation and what types of automated components are on the vehicle. Such a system can prove valuable to allowing key stakeholders beyond the insurance industry know exactly how a vehicle operates and what levels of automation it is capable of achieving.

c. Federal, State, and Local Roles

State Farm is supportive of future DOT AV guidance continuing to outline the roles of federal and state government in regulating automated vehicles. The Federal government – through DOT and NHTSA – should have the authority to make determinations for the required performance and safety, including data integrity, of self-driving cars. States and localities should have the authority to make their own decisions regarding registration, licensing, and where self-driving cars can operate in their jurisdictions. States should continue to regulate insurance for automated vehicles. States should also define and address automated vehicle personal liability issues in state/tort law and regulation in line with existing liability constructs. State Farm also understands that these issues will continue to evolve and believes there should be further examination of them in the future.

d. Safety Evaluation Reports

³ American Association of Motor Vehicle Administrators “Jurisdictional Guidelines for the Safe Testing and Deployment of Highly Automated Vehicles (2018) (<https://www.aamva.org/default.aspx>).

As recognized in previous versions of the DOT AV Guidance, safety evaluation reports are an important tool in helping determine the effectiveness of automated vehicles. At a minimum, such safety evaluation reports should be mandatory. In addition, the DOT should consider the relevance of creating an assessment framework to help determine the safety and effectiveness of automated vehicles. There are currently a number of efforts underway to craft safety assessments and the DOT should continue to consider some of these efforts as it examines how to examine Safety Evaluation Reports in the context of future AV guidance.

e. Human Factors

Human factors is a key topic of consideration as automated vehicles continue to develop. State Farm is encouraged by the focus on human factors research highlighted in AV 4.0 that being conducted by NHTSA, FTA, and FMCSA. State Farm's research shows that in a mixed fleet, if drivers of existing vehicles may increase risk if they do not understand the capabilities of the automated vehicles around them. In order to better understand the safety impact of these automated systems (or any other unintended impact), it is critical to understand 1) how and when drivers use the systems; 2) whether they are using the systems appropriately and correctly; and 3) a complete and accurate understanding of the systems' capabilities and limitations. A potential positive outcome of additional human factors research is helping create standards so that automated vehicles can be designed with engineering requirements (e.g., time of how to take an unprotected left turn) that are in alignment with human drivers. In addition, human factors research is essential in helping bridge the different levels of automation that a single vehicle is able to achieve due to its different components.

f. Consumer Education

State Farm supports continued efforts to enhance consumer education on automated vehicles. State Farm and the insurance industry play a valuable role in educating consumers on a number of automotive issues. State Farm conducts surveys on the public's perceptions of automated vehicle technology.⁴ State Farm is also a key supporter of and Chairs the Insurance Institute for Highway Safety (IIHS), which is an independent, non-profit research and educational organization dedicated to reducing motor vehicle crashes. IIHS is dedicating significant resources to help better understand the safety impacts of automated vehicles and help educate consumers on these issues. State Farm supports efforts for the DOT and NHTSA to engage relevant stakeholders, such as IIHS and the insurance industry, to develop a consumer education program.

g. Cybersecurity

Examining cybersecurity issues is critical, as there are growing concerns regarding the ability for a person, entity, or state to hack into an automated vehicle, ultimately causing crashes. In addition, there is also concerns that hacking the core systems behind an automated fleet of vehicles can cause wide spread damage. These risks will increase the complexity of underwriting, liability considerations, and adjusting cyber insurance products, but may also provide opportunities for new product development and ways to better ensure security. To that end, State Farm supports state and federal authorities working together to develop clear and workable data security requirements for automated vehicles.

h. Privacy

⁴ <https://newsroom.statefarm.com/state-farm-releases-autonomous-vehicles-survey-results/>

State Farm believes that privacy considerations extend beyond legislation aimed at a specific technology and favors the broad enactment of a pre-emptive national data privacy law. To that end, State Farm is supportive of reasonable consumer protections in national data privacy legislation supporting concepts allowing for transparency, correction of inaccurate information, and deletion of personal data under certain conditions.

i. Other Considerations

There is a continued focus on allowing manufacturers, suppliers, and tech companies to innovate in the automated vehicle space. However, there needs to be an examination of how insurers will also be able to innovate in relation to product and coverage development for these new technologies. As events over the past couple of years show, there will continue to be crashes regardless of what level of automation exists on a vehicle, and thus a need for the ability to properly address risk in the future state. Continuing to recognize the insurance industry as a key stakeholder on these issues will help allow for State Farm to continue to innovate on behalf of its policyholders.

Conclusion

State Farm supports technology advancements that improve safety for the benefit of our customers, and is a key stakeholder in the development of automated vehicles. We look forward to continue to help influence the safe development of these technologies. Please let us know if you have additional questions as we continue to work on these issues together.

Sincerely,

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