UNITED STATES DEPARTMENT OF TRANSPORTATION

# AUTOMATED DRIVING SYSTEMS 2.0: A VISION FOR SAFETY PUBLIC MEETING

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Reported by: KeVon Congo

A P P E A R A N C E S

Nat Beuse, NHTSA

Dee Williams, NHTSA

Deborah Sweet, NHTSA

Heidi King, NHTSA

Melanie Brunson, Blinded Veterans Associations

Henry Claypool, American Association of People with Disabilities

John Pare, National Federation of the Blind

Ashley Helsing

Kayla McKeon

Carol Tyson, Disability Rights, Education and Events Fund

Dylan Hedtler-Gaudette, National Federation of the Blind

Megan Ekstrom, Motorcycle Riders Foundation

Michael Sayre, American Motorcycle Association

William Wallace, Consumers Union/Consumer Reports

Jason Levine, Center for Auto Safety

Peter Kurdock, Advocate for Highway and Auto Safety

David F. Snyder, Property Casualty Insurance Association of America

A P P E A R A N C E S (continued)

Jonathan Weinberger, Alliance for Auto Manufacturers

Paul Scullion, Association of Global Automakers

Andre Welch, Ford Motor Company

Amitai Bin-Nun, Autonomous Vehicles and Mobility Innovations, America's Securing Future Energy

Timothy Blubaugh, Truck and Engine Association

Mike Cammisa, American Trucking Associations

P R O C E E D I N G S

MR. BEUSE: My name is Nat Beuse. I'm the Associate Administrator for Vehicle Safety Research and I'd like to welcome you to this morning's listening session on automated driving systems, a vision for safety.

We're going to go through a few housekeeping items just real quick. And I would introduce Debbie Sweet and Dee Williams, who are going to co-chair this meeting with me. And we'll also have our Deputy Administrator who will stop by to give remarks.

Without further ado, Debbie, please walk us through that.

MS. SWEET: All right. Thanks, Nat.

Good morning, and thank you very much for coming here this morning. Again, my name is Debbie Sweet and I work in vehicle safety research here at NHTSA.

Before we get started, like we said, we want to cover a few housekeeping things. Bathroom, catty-corner from this back door. If there's an

emergency and we need to exit the building, you can hit any of these three doors, walk back towards the atrium and then there's exits on both sides. So just in case we need to do that.

If we can ask everyone to silence their cell phones, please, if you haven't already done so. We have webcast and we just want to make sure that the audio is clear. In addition, for those speaking, if you can please speak into the microphone to make sure that we get it captured as well.

We do have an overflow room. It's pretty crowded in here today, so if anybody needs a little bit more space, you're welcome to go to Conference Room 3, which is going to be back down this hall and almost to the very end on the left. Conference Room 3 is an overflow room. That's going to have the listening session via webcast. You're welcome to take a seat in there if -- if you need a little bit more space.

As we move through the morning, we're going to be calling registered speakers by name. We have,

as of now, one person on the phone that we'll let go first. And then if you registered to speak, I'm going to ask you to come to the podium up front. Again, speak into the microphone. All comments should be directed towards the NHTSA staff. If we have questions for follow up, we'll just ask a couple questions at that time.

We'll go through all the registered speakers first and then we'll open the floor for anyone else who would like to provide comments. Again, we ask that you restrict your comments to five minutes so that we can make sure that everybody has an opportunity to speak today.

We are going to run through the technical -- or through the volunteer guidance for ADS first, comments on those, and then set aside, we have a little bit different time for the technical assistance [inaudible].

We have a break scheduled tentatively, but if -- we're just going to kind of play it by ear as far as timing goes so that we can go ahead and do the break as necessary.

Before I -- before we begin, we want to go ahead and make sure everyone is aware that we have three dockets open right now, that everyone has the numbers. I had them up on the slide earlier, so hopefully you had a chance to take a look. Three dockets open right now; one is for general comments on ADS 2.0, that closes on November 14th. The second is the PRA for ADS 2.0, that closes also on November 14th. We have a third docket that was opened subsequent -- or in conjunction with the voluntary safety self-assessment public meeting that we had a couple weeks ago, and that closes on December 18th. Docket numbers, if you need them, I can hand them to you again and put the slide up at the end of the meeting, if you'd like to look at the docket numbers.

I also want to bring to everyone's attention, if you're not already aware, that we have a lot of information on our NHTSA website regarding automated driving systems, so NHTSA.gov/AV is our main consumer webpage. I do want to make sure that everyone is aware that there is a

differentiation between some of our information on the web regarding ADS and advanced technologies in general. So when you go to the AV website, it's going to direct you to the consumer-targeted website. Accessible through the manufacturers' section on our web as well as on that main AV website is a guidance resources document, and that's going to provide the ADS 2.0 itself as well as some Q and A, information about public meetings, [inaudible] register notices and the like. So please go and take a look at that information as well. And if you have questions or comments, please make sure that we're aware of them.

I think that covers general information and housekeeping. So to get us started this morning, it's my pleasure to introduce you guys to NHTSA's Acting Administrator, Heidi King. It's been a pleasure having Heidi here at NHTSA so far. It's evident that she really cares about what we're doing here at the agency. She's really thirsty for knowledge and continuing in our efforts

towards safety. So we appreciate her stopping by this morning. And with that, please welcome Heidi King.

MS. KING: Thank you very much. And good morning and happy Monday, everybody. It is Monday, right?

It's very much my honor to be with you here this morning. Thank you to the team for making the opportunity for me to come say hello and welcome you and to have some time with you to hear your comments.

As you know, we're here to discuss the automated driving systems 2.0 guidance of vision for safety. Couldn't be more excited. A vision for safety, as you know, was released a couple of months ago, taking into account the many comments we received after last year's guidance, 1.0, was issued. We tried very hard to listen from your feedback, from other's feedback, from state and local governments, and those comments are reflected in the draft 2.0 that you have now that we're discussing today.

As you know, if offers a path forward for the safe deployment of autonomous vehicles. Safety at NHTSA is our very first priority. It's a very first priority for almost all of us. So please keep that in mind in your comments, and you'll continue to hear that theme from us. When we're in times of rapid technological change, it's more important than ever to be mindful of safety.

The safe deployment of vehicles and the 2.0 guidance, we're encouraging new entrance into the space, encouraging ideas that deliver safer vehicles. We're creating a flexible framework to help match the pace of private sector innovation with government action. We're supporting industry innovation and encouraging open communication.

The 2.0 guidance, in identifying best practices from around the country and offering technical assistance to State legislatures will hopefully create a place and a room and a structure for the dialogue as we move through this exciting time together.

So as I mentioned, the 2.0 guidance is

reflecting the comments and feedback we received from last year's guidance. Let me note that 2.0 is not a static document. A vision for safety is not a static document. We are here today to hear your feedback, to incorporate it and think about our next steps forward; to gather more information together, to continue moving forward together. We hope to hear from you, from all of you. I know that many of you are speakers here today. While I will not be able to be in the room with you, many of us are upstairs watching online as best as we're able. But anyone in this room and the others engaged in the industry, we hope to hear from you as well; if not today, at some point in the near future.

We're at a point now where we're not just receiving comments on a guidance, we're actually implementing the guidance. We're not just presenting it, we're living it. We've seen one company already move forward with their safety report, with their voluntary safety self-assessment, including discussion of all 12 safety

elements in their document. We're excited to see the first mover and we're looking forward to seeing more.

So welcome today. Happy Monday. We look forward to hearing your comments today. I see the room is very full with even more participants joining us by webcast.

As you know, our goal at the Department of Transportation is to help usher in this new era in transportation innovation and safety, ensuring that our country remains a global leader in autonomist technology development. Efforts like this listening session, collaborating with stakeholders, this is how together we will stay on top of and in step with moving forward together. We are eager to hear from you today, from all of you, and look forward to working together in the coming year. Thank you.

MS. SWEET: So thank you, Heidi, for those comments.

We're going to start now with the listening session. Our first presenter is Melanie Brunson.

She's going to join us on the phone. So we're going to make sure that the AV is working okay. So give us a second.

MS. WILLIAMS: Are you there?

MS. BRUNSON: I am.

MS. WILLIAMS: Wonderful. And can you hear us okay?

MS. BRUNSON: I can hear you fine.

MS. SWEET: Okay. Perfect. Whenever you're ready.

MS. BRUNSON: Good morning and thank you for the opportunity to speak with you today. I'm sorry that I couldn't be in the room with everyone. But I am here to represent the Blinded Veterans Associations. Our members are very interested and, frankly, excited about the automated vehicle technology as a means of helping to remove one of the most intransigent barriers that people who do not drive have faced, and that is access to transportation.

Transportation has been a -- the lack of transportation has been a barrier to full

participation in everything from healthcare to re-employment after folks return to civilian life following military service. So there are a number of reasons why this technology of great interest as a means of circumventing some of these barriers.

We are followers of the technology, pleased with the direction that NHTSA has been taking. The approach seems reasonable. I think the only thing that I would say is that it is our hope that the voluntary nature of the guidance does not prevent NHTSA from being proactive in terms of getting the word out about the value of this technology as a -- as a means of improving safety as well as improving access to community and full participation in society for non-drivers because there is always resistance to change, even good change, due to fear and due to lack of information. And NHTSA can be a good source of that information to help smooth some of the rough edges in the transition that are likely to occur as the technology evolves. Well, it doesn't even

evolve, it's like it is moving fairly fast-paced. And sometimes the concerns can't keep up with the innovation. So we hope that NHTSA will be proactive as an intermediary between public -- the public and the industry in terms of making sure that the benefits are, in fact, there and, in fact, are known to help to public so that the transition to the acceptance of this technology as a safe means of transportation can be -- can be more widespread because there's already a lot of talk about the potential for things to go wrong. And while that potential certainly is there, NHTSA can play a good role in terms of helping industry to minimize it as well as helping the public to accept the technology.

So we just encourage that as the process moves forward, and we look forward to the advent of this technology as time goes on. So thank you very much for the opportunity to -- to raise this concern, but also thank you for the work that you're doing to help to bring this technology into greater acceptance and greater use. We look

forward to it as time passes.

MS. SWEET: Wonderful. Thank you. Thank you, Melanie.

MS. BRUNSON: Thank you.

MS. SWEET: And is Susan on the phone? Okay. We'll check again for her.

Next I'd like to ask Henry Claypool for his comments. Mr. Claypool?

MR. CLAYPOOL: Hello. I'm Henry Claypool, a policy consultant to the Americans -- or the Association -- excuse me -- the American Association of People with Disabilities. I swear I know them.

AAPD really appreciates the opportunity to provide comment here. So they'll be directed at NHSTA, but just the opportunity to put a few things on the record is something we deeply appreciate.

First of all, AAPD would like to see level 4 and above automated vehicles operating on public roads as soon as it is safety possible. We seek direct engagement with the automobile

manufacturers, with plans to deploy level 4 vehicles in the next few years, to ensure that accessibility issues are addressed. And NHTSA needs to make clear that existing safety standards are not barriers to efforts to design, build, test, deploy fully autonomous, fully accessible vehicles.

So AAPD believes that this technology will make it safer for all people to travel on public roads, especially those of us with limited transportation options. We also believe that industry, government and consumer groups should work together to insure that level 4 autonomous vehicles are safely operating on public roads as soon as possible.

With major automobile manufacturers stating that they have an -- they have autonomous vehicles operating at level 4 on public roads early in the decade, we assume that the design work for these vehicles is well underway. We urge the automobile industry to engage directly with consumer groups like the Americans with -- the AAPD and a host of

others that you'll hear from today, to engage directly with these groups to understand the accessibility needs.

We feel strongly, due to the limited evidence of automobile manufacture -- the limited evidence that automobile manufacturers are working to create accessible AVs today. We're concerned that certain populations will not be able to benefit from this technology if very specific design issue are not addressed. If NHTSA can be helpful in facilitating conversations around the accessibility of AVs, we welcome that.

As NHTSA is updating testing protocols for AVs, the agency should identify standards that are barriers to creating accessible vehicles. So wherever you can find a potential safety standard that might prevent a manufacturer from moving forward, we would appreciate you flagging that for them and us.

Also, NHTSA should solicit input from those entities designing and building AVs on the barriers they encounter to building accessibility

into these vehicles. The creation of a wheelchair accessible AV presents some significant design challenges. NHTSA should consider establishing a special work stream to support industry in its efforts to deploy an AV able to transport people that sit in their wheelchairs while they are in transit. It's been a struggle when we look at how the key NC's [phonetic] are operating and their ability to provide a wheelchair accessible option, and since we understand that the early phases of AVs will deploy in a fleet manner, we assume that we'll encounter those same challenges.

So we need to have a greater deliberation around how we're going to serve that population that relies on a wheelchair while in transit.

So, again, thank you for the opportunity.

MS. SWEET: Thank you, Mr. Claypool.

Thank you. Next, if I could ask Mr. John Pare to come to the microphone.

Thank you.

MR. PARE: Hello. My name is John Pare and I'm the Executive Director for Advocacy and Policy

at the National Federation of the Blind.

I want to begin by commending NHTSA for its fine work on the pedestrian safety enhancement act, that final rule went into effect just recently, and say that this -- the work on the pedestrian safety enhancement act can be a paradigm for how we can work together on AV technology. And the key here will be the partnership between NHTSA and the various car companies and the disability community, blind people. Just like we did for the pedestrian safety enhancement act, we had a tremendous team effort to try to create that with those legs of the stool being NHTSA, car companies, disability groups. And I think we can do that now, and I think we are doing it now. We had a meeting about ten days ago at the National Federation of Blind with participation from the three legs of the stool, NHTSA and many car companies with strong representation from the Alliance of Automobile Manufacturers and many disability groups, and we had a productive discussion. And I think today's

meeting reflects that. So I want to thank you and encourage that we continue because I see this as the first not the -- a first step, certainly not the last step, in a ten-year conversation.

Certainly, as you heard from Melanie earlier, AV cars represent a particular benefit to people who don't currently drive, like blind people. Blind people get around today using mass transit and other things. We don't have the transportation flexibility that autonomous vehicles will present. So we are particularly interested in moving forward as quickly as possible, just as Henry has indicated, as soon as level 4 and 5 vehicles can be safely on the road the better.

It affects a large number of people. According to the American Community Survey from the Census Bureau, 6,833,000 -- there are 6,833,000 blind people in the United States. And in terms of worldwide, there's 253,000,000 blind people who are unable to drive due to their vision that would benefit from autonomous vehicles.

Certainly there's many other people who don't currently drive who will also benefit from autonomous vehicles. So this work is incredibly important.

For blind people, there's probably two key things to keep in mind, and I think some of my colleagues that will come after might give more details on these, but the first will be that there shouldn't be any requirement -- today when you get a driver's license for a regular car, certainly the idea that you'd have to take an acuity test makes sense, but with cars that drive themselves, any concept of an acuity test for your eyes doesn't make any sense. So we want to make sure that there's no barriers in any way to getting whatever type of operators' licenses that need to be obtained to operate these vehicles for blind people.

And second, that they are fully accessible through various tactile and audio interfaces. This is actually very easy to do, so it's not -- it's not a big ask, but it needs to be clearly

defined and the work in guideline 2.0 is a good start. I think we need to keep refining that and putting more details to make sure car companies know exactly what it means to make sure things are compliant, not only in instructing a car where it needs to go, but making sure that you can monitor progress and operate other things like the air conditioning and the radio and so forth.

We look forward to working together on all of these things and appreciate the opportunity today to provide these comments.

MS. SWEET: Thank you, Mr. Pare.

All right. Next I'd like to ask Ashley Helsing, along with Audrian Forsyth [phonetic] to please come forward.

MS. HELSING: Thank you. Audrian actually couldn’t make it today so I brought my other colleague, Kayla.

MS. SWEET: Kayla?

MS. HELSING: Kayla McKeon.

MS. SWEET: Welcome.

MS. McKEON: Thank you.

MS. HELSING: So thank you so much first and foremost for having us today. AVs will make a huge difference for the Down Syndrome community and for the intellectual disability community at large. It, you know, will be really important that -- that safety standards are, of course, up to -- up to snuff and that caregivers and parents, family members are all aware of those -- of those -- of those safety standards and the like. AVs will mean significant more -- significantly more independence for the Down Syndrome community. Transportation is a huge barrier for employment of people with Down Syndrome. That's one thing that my organization is working a lot right now is getting people with Down Syndrome jobs, and that is identified as a really large barrier.

We're very lucky here in D.C. to have, you know, the public transportation and things that we do have, but for most of the country that is not the case. So AVs will make -- will make a huge difference.

Now I'll hand it over to Kayla for the self-

advocate perspective.

MS. McKEON: Thank you, Ashley. And -- thank you, Ashley. And thank you for having us here today. We feel as a self-advocate that, yes, maybe some of us can drive, some of us can't. It's on the physicalities of someone with Down Syndrome may not be up to speed on everything. That we feel like this would benefit in the long run. Maybe we don't have all those things you [inaudible], but with that, I can see it. So let's get on the same page here, right? And collaborate as much as we can and really get this going.

Thank you.

MS. SWEET: Thank you, Kayla. Thank you, Ashley.

All right. Is Carol Tyson here to speak today?

MS. TYSON: Hi. Thank you for allowing me the opportunity to speak, and I want to support the comments from the other members of the disability community as well.

I'm here representing the Disability Rights, Education and Events Fund. We're based in California, a leading national civil rights law and policy center directed by individuals with disabilities and parents who have children with disabilities.

Automated driving systems have the potential to dramatically improve the lives of people with disabilities, but the promise and safety of these systems will only be realized if the cars are truly accessible and the safety elements take into consideration the needs of people with disabilities. There is no -- no substitute, as we've heard, for gathering input directly from users with disabilities.

To that end, DREEF encourages the following on the front end rather than the back end, which will cost a lot more money as -- as we know.

So I went through and looked at each of the safety elements, and I'm not going to speak to each one, but I did want to mention a few -- a few ideas that we have.

On the operational design domain, in addition to when and where the vehicle is designed to operate, we would recommend including who the vehicle is designed to transport. For example, whether or not it can accommodate a person who's using a manual or power wheelchair.

On the human machine interface, the current guidelines encourage consultation with the disability community in the design of the HMI and we're grateful for that, though I would love it to see because right now it's a footnote, if you could pull that into the main guidelines. But we believe people with disabilities will have final design and process recommendations across all of the safety design elements and we would hope that you could encourage the engagement of the people with disabilities and testers across all of the safety elements and not just in the HMI.

Let's see. In crashworthiness, please recommend consideration of people of all shapes and sizes, wheelchair users and guide dogs when these testing -- when the testing is happening.

Post-crash AVS behavior. Please consider recommending a transparent process and plan for post-crash behavior. Whether and when state or local police or an ambulance will be alerted should be clear to operators and passengers before they get in the car. So understanding when that engagement will take place.

Data reporting. For after a crash has happened, I would ask you to consider nothing whether there is a sidewalk on that street where the crash happened, if it isn't on a highway. And I think that in other areas around DOT work, particularly pedestrian, bicycle safety, that will prove useful in the future.

And then consumer education and training. Please consider recommending disability sensitivity training for entity, staff, marketers, dealers and distributors. Recommend that materials be available in accessible formats, including braille and if there are videos, make sure they're captioned.

On the best practices for state highway

officials, for recordkeeping, please consider encouraging collection of accessible data, including the number of available wheelchair-accessible vehicles once those have been designed and are available.

And vehicles with additional accessibility features, identifying ways in state recordkeeping and a collection of upgrades post-sale information can help the disability community and DOT in the future identify unmet needs in different areas.

And then on liability and insurance, please consider recommending that liability and insurance laws must preclude discrimination on the basis of disability. People with disabilities should not be required to pay higher insurance rates and should not be considered more liable in crashes.

Let's see, last thing. The voluntary self-assessment template, please consider encouraging an assessment of how people with disabilities will be protected in the vehicle and accessibility features, including HMI, that will increase the safety of people with disabilities.

Thank you for this opportunity. We believe that keeping people with disabilities in mind at every step will be crucial to making sure this is safe for people with disabilities and does sort of lift up that promise that we keep seeing in the press of increasing access to people with disabilities. And I think this is even more important because NHTSA is encouraging non-traditional stakeholders to be involved and I think it's already been mentioned, we've sort of been -- the disability community has been through this with the Uber and Lyft and sort of non-traditional folks who are new to scene who had said in the past that they just didn't know, they didn't understand what the disability community needed. And so now we know, you know, that we need to have some engagement throughout the process, and NHTSA can help us with that, so thank you very much for the opportunity.

MS. SWEET: All right. I'd like to ask Dylan Hedtler-Gaudette, please. Dylan.

MR. HEDTLER-GAUDETTE: Good morning. Thank

you for convening this event. Thank you to NHTSA and to Secretary Chao for all of the work that you all have been doing in this area.

I want to start by adding a couple of powerful and illustrative data points to just how impactful autonomous vehicles can be for the disability community. One of our previous speakers, actually, Mr. Henry Claypool, worked on a report in collaboration with some other organizations that really looked at how powerful autonomous vehicles can be for people with disabilities, and there are two particular kind of high level takeaways from that, one of which is that about $19 billion in wasted medical costs could be saved through the advent of autonomous vehicles. That happened largely as a result of missed medical appointments and medical complications that can arise from those missed medical appointments, which in turn end up costing more money. So $19 billion, I think we would all like to have an extra $19 billion in our pocket.

Also, 2 million employment opportunities could

be opened up to the disability community. It's -- it's a sad, but true fact that employment is still a lagging indicator in the disability community. It is a challenge. One of the ways that that challenge manifests itself is through lack of access to reliable transportation. So the advent, again, of autonomous vehicle technology could help to alleviate part of that challenge in the disability community.

I won't spend too much time sort of elaborating anymore about the benefits of autonomous vehicles to the blind and others with disabilities. I think the people who preceded me did a good job of doing that.

What I would like to speak to a little bit is how NHTSA and other stakeholders can be productive partners in this space, vis-à-vis, the disability community. I think it's important to remember that accessibility and safety are inextricable. They are mutually reinforcing, but we do need to keep in mind that we can't allow the one to be sacrificed at the altar of the other. And

specifically I mean that we cannot allow accessibility to be sacrificed in the name of safety. It is, of course, true that safety is of paramount importance here. When more than 37,000 have died due to vehicle-related crashes in 2016, I think it's pretty clear that safety is critical. But accessibility is also critical. We are absolutely positive that accessibility is indispensable to safety. It is true that the more accessible and inclusive a vehicle is from the ground up, the more likely it is to also be safe.

Speaking of safety and accessibility, again, though, one thing we also need to avoid is paternalism. We in the disability community do not need to be told that we are being protected and as result we therefore must wait to have access to autonomous vehicles. What we are insisting on is equal access from the outset, and the only way we get to that point is through substantial proactive collaboration and engagement from the ground up. And that is what we're doing here today. So I just want to again stress and

highlight how much we applaud and commend NHTSA and other stakeholders for being involved in these conversations, for hosting these dialogues.

As my colleague, John Pare mentioned, we, the National Federation of the Blind, did host the first of its kind convening of a broad swath of stakeholders to speak to this very issue, and we did that about ten days ago. So this is very timely. But those conversations and that engagement needs to continue. And we also need to continue on the legislative front. I'm sure everyone in this room is aware that there have been autonomous vehicle bills moving in both the House and the Senate. The House actually passed its bill. The Senate recently got its bill out of the Commerce Committee, so we're seeing progress.

We at the National Federation of the Blind strongly support the Senate bill in particular because, as I have been highlighting here, it recognizes that accessibility is a key component of all of this. Accessibility and access are -- are included all throughout the Senate bill and we

were happy to be a part of that process.

So the upshot is that we in the disability community are extremely excited about this technology and the promise that it holds to enhance independence and promote opportunity. And we stand ready to be an active and engaged partner with the rest of you, and we hope that you stand willing and ready to do the same. Thank you.

MS. SWEET: Thank you, Dylan.

MR. BEUSE: Dylan, you can go back to your seat. I just have one comment, either for you or Henry, just for the benefit of everybody else. I know I have a copy of that report, but those online may not. So if you guys could just make sure that gets into the docket at some point, I'd appreciate it.

MS. SWEET: Great. Is Megan Ekstrom here today? Megan, if you could come forward, please.

MS. EKSTROM: Hi. My name is Megan Ekstrom and I'm the vice president of government affairs for the Motorcycle Riders Foundation. The Motorcycle Riders Foundation, or the MRF, we

provide leadership for state's motorcyclists, riders associations as well as motorcycle clubs and individual riders. And through our state partners and affiliates, we have a network of over 250,000 motorcycle riders.

We're chiefly concerned with issues at the national and international levels that impact the freedom and safety of American street? motorcyclists and the regulations and policies surrounding autonomous vehicles in certainly one of these areas.

I'd like to start by thanking NHTSA for hosting this listening session and taking the steps to approaching this next generation of technology through an open, transparent and collaborative process. However, in reviewing the most recent guidelines, we did note that motorcyclists were mentioned only twice in the 36-page document and only in the context of being under NHTSA's jurisdiction and under Point 6 of Section 1, the human machine interface.

While we recognize and appreciate this attempt

at being inclusive, we continue to be a little bit apprehensive that the unique characteristics of motorcyclists and their road etiquette is far different from that of other types of vehicles and road users.

With the latest statistics suggesting that there are over 8.5 million riders on our nation's highways, it is critical that this unique group of roadway users be included in future guidance, specifically as it relates to object and event detection. This will not only be important for future automated technologies such as SAE automation Levels 3, 4 and 5, but it is currently a concern for Level 2 vehicles already on our nation's roadway.

In March of this year a Tesla on autopilot crashed into a stopped police officer on his motorcycle in Arizona. The officer, who was in front of the Tesla driver, stopped for a stoplight and after stopping briefly, the Tesla began to move forward, prompting the officer to jump off his motorcycle and move away. The car then struck

the fallen motorcycle, and it's incidents like these that have motorcyclists very rightfully concerned about the emergence of autonomous vehicles.

Today my comments specifically surround Point 3 of Section 1 of the guidance, which is the object and event detection and response. We were pleased to see the encouragement for automakers and other entities to have a process for assessment, testing and validation of OEDR capabilities. However, we were disappointed to see that when listing the groups of road users in which OEDR function should be able to detect and recognize, the following groups were listed: Pedestrians, bicyclists, animals and other objects. Motorcycles were not listed.

The MRF strongly urges NHTSA to press automakers to consider the unique attributes of motorcyclists and include this growing population of roadway users to be a key consideration when developing any sort of assessment, testing and validation documentation as it relates to safety.

We would also encourage NHTSA to guide automakers to include motorcyclists in pre-crash scenarios, especially those of the left-hand turn category, which is one of the leading circumstances in motorcycles crashes.

Finally, we would ask that NHTSA and other parties include the motorcyclist population when determining consumer and public education and awareness campaigns. And approximately out of 1 out of every 36 people in America rides a motorcycle. And it's imperative that this segment of the population is a part of any conversation concerning guidance, regulations or policies related to autonomous vehicles as our riders will be directly affected by this technology.

On behalf of our network of motorcycle riders in the U.S., we applaud the promotion of innovation, but it cannot be to the detriment of a population of 8.5 million roadway users. We hope and look forward to working with NHTSA to insure that the unique needs and requirements of motorcyclists across the U.S. are being considered

and accounted for as the agency moves forward with future policies that address autonomous vehicles.

Thank you.

MS. SWEET: Megan, I have a question for you. You mentioned a specific incident. Was your organization made aware of any incident involving a motorcycle and automated driving systems currently?

MS. EKSTROM: So apart from the one incident in Arizona, we have -- we have a couple of anecdotal stories, but that's the only one that made the news.

MS. SWEET: Okay. And are you sharing those with others?

MS. EKSTROM: Yes.

MS. SWEET: Okay.

MS. EKSTROM: Yes.

MS. SWEET: Okay.

MS. EKSTROM: Absolutely.

MS. SWEET: Okay. Thanks.

Michael Sayre? I don't know if I pronounced that right. Correct me if I said that wrong. I

apologize.

MR. SAYRE: That's all right. Thank you. I'm Michael Sayre. I'm the [inaudible] relations manager for on-road issues for the American Motorcycle Association, and we would like to thank NHTSA for hosting this listening session and for providing the riding and driving public the opportunity to comment on this important issue.

Founded in 1924, the non-profit AMA is the premier advocate of the motorcycle community and represents the interests of millions of on and off-road motorcyclists and off all-terrain ve -- well, all-terrain vehicle riders. Our mission is to promote the motorcycle lifestyle and protect the future of motorcycling. Reducing traffic crashes involving motorcycles and decreasing the number of motorcycle operators and passengers injured or killed each year is a top priority of the AMA. Through a comprehensive approach, and it includes promoting rider education, the use of personal protective equipment and increased motorist awareness and discouraging impaired

motorcycle operation, the AMA seeks to enhance motorcycle safety in transportation and recreational activities.

While the AMA is heartened to see that motorcyclists have been mentioned in the automated driving systems document, we believe more should be done to insure automated driving systems can properly interact with our nation's more than 8.5 million motorcyclists. We must insure that automated driving systems can safety and reliably interact with motorcyclists on the road. The AMA urges NHTSA to work with manufacturers, software developers and other entities to create testing procedures that can verify the ability of this technology to safely interact with motorcyclists on the road.

With the proliferation of advanced technologies and passenger vehicles and light trucks, the AMA needs assurances that the federal automated vehicle policy includes motorcyclists as an important part of its plan.

Thank you for the opportunity to make comments

on this issue of vital importance to motorcyclists. Thank you.

MS. SWEET: All right. William Wallace, if you can come to the microphone, please.

MR. WALLACE: Good morning.

MS. SWEET: Good morning.

MR. WALLACE: Consumers Union, policy division of Consumer Reports, an independent non-profit. Thanks for the opportunity to share oral comments on the voluntary guidance for automated driving systems. We share our thoughts on a few subjects today and will make additional comments in writing.

At CR and CU, we see enormous potential for automated driving systems to make our roads far safer and to greatly improve mobility. In developing and rolling out these systems, we have heard today that safety is the top priority, as it should be. But companies should show the public, not just tell them, that it is their top priority too. That means sharing their safety data and being more transparent overall.

Greater disclosure would help companies build trust in their products, which right now is lacking. For example, preliminary survey results released by MIT researchers in May indicated that only 13 percent of respondents would be comfortable with fully a fully autonomous car. Down 10 percentage points from last year.

Transparency builds trust and no company should be afraid of transparency if they are putting safety first. Recent history provides all the more reason to be transparent. Whether it's because of GM ignition switches, Takata airbags or Volkswagen emission software, consumers are not necessarily going to immediately trust auto companies when it comes to something as fundamental as handing over the driving task. Consumers are not necessarily going to assume that what companies are saying about the safety of automated driving systems is true. They're going to want to proof.

With that in mind, we strongly encourage entities to implement, follow and surpass NHTSA's

guidelines. All stakeholders should work together to develop a template for exactly what kind of data would be critical to provide to assure safety with regard to each element in the guidance. Stakeholders should agree on a standard for regularly and rapidly updating assessments given that we are in an era in which vehicle features can change overnight.

Altogether this effort would help insure that NHTSA, states, researchers and consumers have the information they need to verify that automated driving systems are safe. For consumers to benefit, it would be particularly important for NHTSA to insure there is a functioning online repository for assessments and that consumers are made aware of its availability.

This exercise to implement NHTSA's guidance also could help identify and limit the information related to automated driving systems that constitute true trade secrets. We strongly urge the narrowest possible definition of confidential business information. After all, transparency

should be each company's friend. We know there's a lot of money to be made and competition is fierce, but the competitive push should not overwhelm the importance of transparency and cooperation for safety. That will come back to bite the industry. The last thing we need is for automated driving technology to be slowed down because an irresponsible actor threatened safety and turns the public sharply against this technology.

Companies also should not limit themselves in the submission of a safety assessment to NHTSA given the consumer need for more information and given that companies should not be satisfied with driving in the future being merely equally safe or only marginally safer than today. With 37,461 fatalities last year, the goal has to be dramatically increasing safety. If consumers are no longer going to be primarily in charge of the vehicle, their expectations for safety are not going to be a 10 percent improvement, it's going to come close to expecting no deaths or injuries.

While Congress may choose to make safety assessments mandatory, NHTSA has made abundantly clear that as far as the agency is concerned, submission is voluntary. But submitting and making public a safety assessment should not be considered voluntary for companies as they seek to build consumer trust. Automakers should submit and make public the assessments and go beyond what is listed in the guidance to include meaningful evaluation of issues like data sharing, privacy and ethics.

In addition, companies should voluntarily submit all applicable information for Level 2 automated driving systems. If for no other reason than real world evidence is showing consumers using L2 vehicles as L3 vehicles in a textbook demonstration of foreseeable misuse.

Regarding NHTA's responsibilities, we want to use the setting to make clear our view that the agency's research, enforcement and other capabilities should be strengthened significantly through both increased funding and authority.

NHTSA should be empowered to protect consumers against new hazards that may emerge and to insure automated systems work as they are supposed to without placing consumers at risk. The agency should be able to do this without being forced to divert resources from critical efforts it already undertakes to prevent crashes and save lives.

For NHTSA to be the kind of watchdog consumers deserve, all stakeholders should push for Congress to give the agency more funding and personnel as well as a greater practical ability to get unsafe cars off the road quickly.

Thank you for your consideration of our comments, and we look forward to continuing to work with NHTSA, with companies and all stakeholders to insure safety and transparency as automated driving systems move forward.

MS. SWEET: Thank you. Is Jason Levine here?

MR. LEVINE: Good morning. My name is Jason Levine. I'm the executive director of the Center for Auto Safety. I want to thank the National Highway Traffic Safety Administration for

conducting this listening session today.

The Center for Auto Safety is the nation's leading independent non-profit organization advocating for auto safety, quality and fuel economy. On behalf of the Center's staff and our thousands of members and supporters across the country, we're pleased to be able to provide input on NHTSA's recently released voluntary guidance for self-driving, non-commercial cars and light trucks.

We understand that Secretary Chao has stated an updated version of the policy is already being written for release in 2018. The Center recommends that if the agency is interested in seeing its guidance be implemented, NHTSA exercise its authority under the Federal Motor Vehicle Safety Act and mandate its vision for safety in automated driving systems.

Accordingly, the Center has three main areas we would like to recommend regarding how the safety concepts expressed in ADS 2.0 could be implemented as well as some changes that should be

incorporated into ADS 3.0. More detailed comments will be submitted in writing.

There may never be a more critical moment in the development of self-driving car technology in terms of consumer acceptance. Proponents refer to its potential in almost mythical terms as if the introduction of these vehicles will magically make 37,000 yearly deaths disappear overnight. The public, however, is incredibly skeptical. As many as 78 percent of Americans surveyed are afraid to ride in a driverless car; fears seemingly confirmed by last year's death in Florida involving a semi-autonomous Tesla. One more incident could set back the cause of these vehicles a decade or more in terms of public acceptance.

Therefore, it would be in the best interest of all stakeholders to make sure that NHTSA, researchers and the public have access to all the necessary data to assure the vehicles are performing as promised. Currently ADS 2.0 states that safety assessment letters are neither

required nor is there any mechanism to compel it to submit them. This must change.

Next, everyone needs to slow down on when Level 4 and 5 cars will be here and make effective safety features, such as automatic emergency braking, mandatory immediately. While it is fun for CEOs and market analysts to see announcements about new testing plans for robot cars in New York City and San Francisco, the technology is not ready to operate on its own yet. Accordingly, what the Safety Administration should be focused on are areas where existing safety technology can save lives in 2018, not in 2048. In fact, NHTSA's website currently says automated vehicle features already help keep drivers safe, but this is only true when vehicles are equipped with available safety technology. Additionally, the vehicle to vehicle communications rule needs to be brought out of mothballs and made final. It is unconscionable to have a safety rule stall because some entities are interested in making money on the spectrum instead of allowing this bandwidth to

be devoted to safety as Congress mandated in 1999.

The further advantage of mandating these sorts of safety technologies today is that it will allow for an iterative process which will provide not only safety, but data on how this technology works over large sample sizes when interacting with vehicles that do not have the technology yet.

Finally, there's a substantial concern about the safety of Level 3 vehicles and conditional automation which hinges on the ability of drivers to take control of vehicles when necessary. Some researchers, including those at Waymo, have concluded that Level 3 technology is simply too dangerous, even "scary," due to driver inability to resume control of the vehicles when required. NHTSA's guidance remains essentially silent on this problem.

If the ADS 2.0 is to meaningful protect human beings while simultaneously encouraging the development of robot cars, Section 5, validation methods, must be amended to explicitly prohibit the testing of Level 4 and Level 5 vehicles on

public roads in non-controlled environments unless and until these vehicles have undergone far more simulation testing both in terms of miles and sophistication.

In closing, the ADS 2.0 has the right title, a vision for safety, and the Center for Auto Safety stands ready to help in making that vision a reality.

Thank you for your time.

MS. SWEET: Thank you.

MS. WILLIAMS: I just want to make one clarification. I believe you said non-commercial vehicles for the AV guidance. It actually does apply to commercial motor vehicles, trucks and buses.

MS. SWEET: All right. Next I'd like to ask Peter Kurdock.

MR. KURDOCK: Hi. Good morning.

MS. SWEET: Good morning.

MR. KURDOCK: Good morning. I'm Peter Kurdock. I'm the director of regulatory affairs for Advocates for Highway and Auto Safety.

Advocates is a coalition of public health, safety and consumer organizations, insurers and insurance agents that promotes highway and auto safety through the adoption of safety laws, policies and regulations.

Advocates is a unique coalition dedicated to advancing safer vehicles, safer drivers and safer roads. We've always enthusiastically championed technology, and for good reason, it's one of the most effective strategies for reducing deaths and injuries. NHTSA has estimated that since 1960 more than 600,000 lives have been saved by motor vehicle safety technologies.

In 1991 Advocates of the Coalition had succeeded in putting the airbag mandate in the ISTE Act of 1991. As a result, by 1997 every new car sold in the United States was equipped with a front seat airbag and the lives it has saved have been significant. Advocates continues to build on our successes by promoting life-saving technology and other bills and regulatory proposals. Those efforts included EFC, anti-lock brakes, rear-view

cameras and other important safety improvements to passenger vehicles, trucks and motor coaches.

According to you all, 37,461 were killed on our nation's roads in 2016. This is an increase of over 5 percent from 2015. AV technologies has the potential to significantly reduce this carnage. However, it is critical that during the next ten years, while self-driving cars continue to be developed and may be deployed, other safety advances which have already been shown to improve safety are not denigrated by the wayside.

To the great disappointment of Advocates and others in the safety community, the second iteration of NHTSA's AV policy, which was released in September, is nothing more than voluntary guidance that the industry may completely ignore. In fact, the agency clearly states this guidance is entirely voluntary with no compliance requirement or enforcement mechanism. That language could not clearer. Voluntary guidelines are completely inadequate, in Advocate's opinion, to insure that American families are not put at an

unreasonable risk during the testing and deployment of autonomous vehicles. This technology must be subject to an effective regulatory framework that provides for certainty for developers and manufacturers as well as guaranties public safety. The agency we believe must establish uniform testing and performance standards and insure that all AV manufacturers are playing by the same set of rules and providing the same minimal level of safety performance. The optional safety self-assessment proposed in Section 1 of the guidance perfectly illustrates the shortcomings of voluntary guidelines. No matter how comprehensive the structure of the safety self-assessment may be -- it could have used a nicer name -- manufacturers can simply choose not to publish one or provide superficial or incomplete information. In fact, under the guidance the agency states entities are not required to submit a voluntary safety self-assessment, nor is there any mechanism to compel anybody to do so.

While Advocates is pleased that Waymo recently released the first safety self-assessment to the public, it's little more than a slick marketing tool, in our opinion. It is certainly not a sufficiently detailed safety document that allow the public, or NHTSA for that matter, to assess the safety of Waymo's technology. While Waymo's safety self-assessment provides a primer on AV technology for the AV novice, it does nothing to inform the tech savvy consumer, let alone motor vehicle safety regulators, about the design and programming choices that were made, how the system actually functions and any shortcomings of the approach chosen by Waymo.

Over the last few years, unfortunately automakers have hidden from the American public and regulators safety effects that have led to countless and unnecessary deaths and injuries as well as the recall of millions of vehicles. Undoubtedly, AV technology will not prevent every crash and will not infallible. Where endeavoring to improve safety, we must not replace human

driver error with human programming errors, mistakes that could have widespread unintended consequences.

Under Section 1 of the guidance, the voluntary safety self-assessment only asks that companies demonstrate they are considering safety. Any defect or setback involving AVs, as Jason mentioned earlier, will severely curtail public acceptance of this technology and risk the progress and promise AVs hold to significantly reduce motor vehicle crashes, fatalities and injuries.

A recent study by Pew revealed deep public skepticism about AVs. The majority of those surveyed said they would not ride in a self-driving vehicle. Of those respondents who said they would not ride in an AV, 42 percent said they did not trust the technology, or feared giving up control of the vehicle and 30 percent cited safety concerns; nearly a third.

Similarly, a Kelley Blue Book survey released in September found that nearly 80 percent of

Respondents believe that people should always have the option to drive themselves, and nearly 1 in 3 said they would never buy a Level 5 AV vehicle.

Section 1 of the guidance also fails to include Level 2 AVs like the Tesla Model S, the crash that's been mentioned earlier. In Florida, during the NTSV hearing held last month on the crash, the deadly fares of the Level 2 vehicle were identified. Additionally, then TSB found that similar problems also existed in other Level 2 systems besides Tesla across many manufacturers. Therefore, Advocates recommends not only should the manufacturers of Level 2 vehicles be covered by the guidance, but that guidance should be mandatory for all AV manufacturers.

Unfortunately, the guidance also takes some critical steps backwards from the Federal Automated Vehicle policy released in 2016. The sharing of data which will be critically important to prevent defects as well as assess the safety and performance of AVs is obliquely mentioned in

the new data recording segment in Section 1.

In addition, consumer privacy, which will be a significant component insuring public acceptance of new technology was only mentioned once in the entire document.

In sum, Advocates believes AV technology holds great promise to advanced safety for everyone. However, federal safety oversight and minimum performance standards, not voluntary guidance, will play an essential role in achieving this brave new world of computer-driven motor vehicles.

Thank you for the opportunity to provide comments today.

Any questions? Okay. Thank you.

MS. SWEET: May I have David Snyder come forward, please.

MR. SNYDER: Good morning. I want to thank you for the opportunity of holding this session.

My name is Dave Snyder. I represent the Property Casualty Insurance Association of America, an organization made up of a thousand insurers and reinsurers from the smallest to

global reinsurers that write in more than a hundred different countries.

At the highest level, insurers have the fundamental business and social obligation to do three things: Objectively identify risk, objectively price for and finance risk, and third and perhaps most importantly, do our best to work with all other players in society to prevent that risk in the first place. As such, insurers interact with every group here, certainly the public, automobile manufacturers, public officials and, indeed, we share the same breadth of engagement that you and the government have. We share it on the private side and we are partners with you and hope that this is only one step in a dialogue to respond to all of the issues and comments raised today and raised previously.

We recognize, as you've heard, there's a huge upside promise for automated vehicles, but we have to deal with the reality that between here and there, there's a real world and that real world is a real world that insurers operate in, as do you.

So here are a couple thoughts. First of all, what are the challenges of automated vehicles for insurers? Well, will automated vehicles really mean fewer claims and less severe claims? How to assure strong and effective safety standards and protection in the future. How to assure access to data for legislative and necessary purposes for insurers. For example, we have our own set of regulatory laws that require us to price our products based upon risk and require us to respond effectively and quickly and fairly to claims. And what is the opportunity for us to develop new products to best support these technological developments.

In this connection, insurer access to data is key to support our ability to play the role for each and every one of the interested parties. For example, we'll need the ability to identify which vehicles are automated and which aren't. We'll need the ability access vehicle data, pictures, video, for claim investigation and liability determination. We'll need the ability at the same

time to protect privacy, cyber security and intellectual property rights and it will be critical for insurers to be able to play our role in the policy process, advisory boards and committees.

Now, here's an issue I want to focus on for a minute, safety and insurance. It's absolutely critical that in the course of dealing with automated vehicles and their promise that we not lose focus on today's auto safety issues. We need to address the new safety issues with safety standards as needed. We need to set clearer expectations for the public and technology developers. Exceptions to safety standards should be exceedingly rare and no exceptions whatsoever to crash protection standards. And we need to assure the primacy of state regulation on insurance and liability issues.

I want to go back to the promise for a minute. It's undeniable, we support making that promise a reality, but we do no good if we address individual driver errors, but inadvertently create

much larger systemic errors. For example, are we really effectively dealing through regulation, through research, through voluntary and mandatory efforts, the potential new threats that could be provided by this technology through glitches in the software or hacking? What we don't want to do is improve the safety on the highway by reducing individual error, but actually introduce systemic error capable of doing significant damage in a split second.

And when I say we're concerned with risk, these are the kinds of things we're concerned with.

So let me conclude with a couple major points. First of all, on crash worthiness, we urge you to maintain and strengthen the existing occupant protection standards, but you also show a clearer roadmap as to how you're going to move forward with standards and enforcement with regard to any potential new risks created by automated vehicles.

In terms of post-crash behavior, the sharing of relevant data is critical and for a number of

stakeholders, certainly you, certainly the researchers and certainly for insurers, so we can do what we're supposed to do, which is identify risk, finance risk and prevent risk.

And finally, data recording, uniform data for crash reconstruction of the type that you've heard about talked about today.

Finally, as our emergency medical technician, I want to share one story with you. Several years ago we were called out to a crash on the Beltway. A lady's car stopped in the travel lane on the Beltway and she was hit by three cars and killed. That's the kind of scenario that we simply have to prevent even as we bring about the promise of automated vehicles. We have to make sure that we're not creating new risks. We have to identify them as risks, and we would urge you to act effectively using all of your tools to mitigate and prevent those risks going forward.

So thank you all very much. Pleased to take any questions today. And we do look forward to working with you and each and every one of the

stakeholders in this room as we move forward to make this promise a safe reality.

Thank you.

MS. SWEET: Jonathan Weinberger, please.

MR. WEINBERGER: Thank you. I'm Jonathan Weinberger, vice president of innovation and technology at the Alliance for Automobile Manufacturers.

So on behalf of the Alliance members, we thank Secretary Chao and the staff of NHTSA for their thoughtful leadership and the opportunity to participate in this public meeting and to discuss the automated driving systems people know. And it's good to hear that the common goal of mobility and enhanced safety, especially from a disability community.

The action that DOT and NHTSA has taken with the updated guidance will help to proactively reduce the barriers for technology that can have profound societal benefits that we've heard today.

HAVs and related safety technologies have the potential to significantly improve overall safety

on our nation's roadways. The fatality numbers for 2016, which we're heard, that NHTSA recently released, underscored what's at stake as we witnessed another year of increase in roadway fatalities.

Given that over 90 percent of crashes are related to human error, the crash avoidance technologies of HAVs offer great promise to reduce these crashes. The enhanced mobility aspects of HAVs are also laudable from a societal, economic environmental perspective. HAVs will offer more personal freedom, as we've heard, and greater self-sufficiency for the elderly and people with disabilities as eloquently put before me, as well as other segments of the population without access today. They also allow reduced congestion getting us from Point A to Point B faster with greater efficiency.

So in order to make sure the industry accomplishes its safety goals, we support DOT's recognition that federal standardization of vehicle safety is key to the deployment of HAVs

and the Department of Transportation's assertion of its primacy in regulating motor vehicles and motor vehicle equipment.

We appreciate the reiteration of federal and state roles and we're thankful the guidance lays the foundation for interstate and cross border coordination that eliminates jurisdictional differences that would impede deployment. To cultivate further deployment, DOT should encourage states to be proactive in removing barriers for testing and deployment, not in creating them.

At the same time, DOT should assure states that they can rely on NHTSA to regulate safety performance on HAV technology, which should obviate the need for state permitting regulations. States have an opportunity to accelerate the deployment of HAVs by enacting state legislation that creates a clear path to driverless deployment.

For example, the legislatures of Colorado, Georgia, Michigan, Nevada, North Carolina, Tennessee and Texas passed laws that allow for

non-testing deployment of HAVs on public roads with and without human drivers. These bills rely on the self-certification and do not require an application or pre-approval permitting process prior to deployment. Legislation of this kind paves the way for driverless deployment while allowing NHTSA to fulfill its role as regulator of vehicle safety performance.

We agree the certification -- self-certification regime combined with agency tools such as NHTSA's broad investigative and recall authority empowered adequately allowed NHTSA to achieve its safety mission, vis-à-vis motor vehicles and motor vehicle equipment. States fulfil their role by addressing licensing liability insurance issues like we just heard before me and by promoting uniformity among such state requirements.

Moreover, the department aims to achieve this goal in part by adopting SAJ3016, automated driving taxonomy and supporting definitions. Many automakers are already using J3016 by adopting

these automated level categories in its guidance. The department is eliminating a major source of ambiguity that will help promote harmonization among governments at all levels, both domestically and abroad.

The future isn't something we should be afraid of or try to slow down; rather it's something we should embrace and smartly accelerate. This is the path the administration has wisely chosen with the update to the federal automated vehicle policy guidance 2.0 and the revamped voluntary safety self-assessment.

Alliance members appreciate the VSSA is a voluntary publication process. This process provides transparency to the public of critical safety elements while affording flexibility for each automaker or ADS supplier to customize their assessment and publish it in the form that makes the most sense for their product and safety development process. This also facilitates benchmarking, which ultimately leads to best practices.

Additionally, the HAV guidance recognizes that not all of the safety elements of the voluntary safety self-assessment will be applicable to test vehicles. We appreciate this recognition and would like to reemphasize that providing VSSA for each variant of an automated test vehicle will quickly become unyielding. Not only do some of the safety areas clearly not apply for automated test vehicles, for instance, consumer education and training, but providing an update for each modification to rapidly developing HAV prototype technology would needlessly encumber the delay in the engineering process. We ask that NHSTA keep this in mind going forward.

Additionally, with respect to crashworthiness template, our understanding is that manufacturers should provide information that demonstrates that the HAV being deployed provide an equivalent level of safety overall as compared to conventional vehicles. This approach is consistent with the expanded exemption process included in both the House and the Senate bills, automated vehicle

bills that are moving through the legislative process as we speak.

Related to this point, Alliance members appreciate the point that Secretary Chao emphasized in the HAV guidance regarding the enforcement authority of NHTSA to identify defects and issue recalls. This process is the same for HAVs as it is for conventional vehicles. The guidance also reiterates NHTSA's role in establishing FMVSSs for enforcing compliance.

In closing, the Alliance is pleased to work with NHTSA on updating many of the conventional vehicle FMVSSs for HAVs. This is an important step to reduce the barriers and we look forward to providing input throughout the process and we'd also like to take time -- take the opportunity to thank the USDOT and NHTSA for their leadership on this issue and the next generation of policies in effect, and you had flexible, step forward in providing safer, cleaner and more accessible mobility for all Americans. The Alliance certainly looks forward to submitting more

detailed comments as part of the -- as part of the formal docket, but I appreciate the opportunity to be part of the public session today. So thank you.

MS. SWEET: Thank you. Paul Scullion.

MR. SCULLION: Hi there. Good morning. My name is Paul Scullion, senior manager of safety and connected automation, the Association of Global Automakers, trade association representing the operation of international auto manufacturers, suppliers and technology providers.

I'd like to thank you again for the opportunity to provide feedback on the automated driving systems 2.0 vision for safety. We appreciate NHTSA and DOT's continued leadership and engagement on this important issue.

I'd like to highlight in our remarks at the recent workshop on October 20th, we believe connected automation will provide significant opportunities for improving safety, efficiency and accessibility and mobility. And with the recent increase in highway fatalities, it's important

that the policy environment continue to support safe testing and deployment of this innovative technology.

In my brief remarks today, I plan to provide some initial industry perspectives on the voluntary guidance and will discuss the technical assistance to states later in the agenda and our written comments will go into more detail and will fit these areas.

So in general, we believe that the federal guidance supported by NHTSA's existing authority strikes the right balance for promoting safety and innovation and focuses more on those -- and focuses more on those elements that are relevant within the context of the safety self-assessment. The approach to the voluntary safety self-assessment process is an important step that will support innovation and encourage open communication with the public. Consumer trust and confidence are critical to the adoption of new technology and we are encouraged that the administration has embraced a safety assurance

process that provides the necessary flexibility to develop and test technologies, to increase public trust and support the deployment of highly automated vehicle systems.

While, again, in our written comments we're going to do more detail, we believe that a number of areas of the guidance improve upon the federal automated vehicle policy 1.0 by providing additional clarification with respect to how each of the various elements should be considered. We're also in the process of discussing the details of the safety assessment template that was recently issued and hope to provide additional feedback in that area also.

We support that the guidance provides flexibility for how information may be communicated to the public and appreciate the agency underscoring the importance of identifying the appropriate level of detail and transparency that can be provided without compromising confidential business information. This is an emerging area and how manufacturers or other

entities may communication relevant information to the public is likely to evolve as we gather more experience and greater understanding of consumer expectations for how information may be structured or presented.

Finally, we agree with the intent of the VSSA in providing more open and transparent communication; however, believe there would be additional benefit in maintaining a website or similar resource that provides the ability for consumers and other stakeholders to link to safety assessments being publicly disclosed by manufacturers. There are, however, several ways that such a resource could be implemented and we're working closely with our members to identify what key elements would need to be in place to support such an effort. And we plan to include recommendations for consideration as part of comments in the docket on this issue.

In conclusion, to my first set of remarks, we appreciate the opportunity to provide comments here today and look forward to continued --

continued engagement both with the agency and other stakeholders here today to support the testing and deployment of this life-saving technology. I'd be pleased to answer any questions you might have.

MS. SWEET: Thanks, Paul. It's just about 10:30, so I'm going to give everybody about a 10-minute, 15-minute break. Make sure you're back here by 10:40 and we'll keep going. We have maybe seven more folks, and then we'll open the floor for anyone else who was not able to register.

[Off the record.]

MS. SWEET: All right. Welcome back. Thanks, everyone, for coming back in so quickly. We'll start back up with Andre Welch.

MR. WELCH: Good morning. Thank you for holding this listening session and providing the opportunity to hear Ford's views.

My name is Andre Welch. I'm the manager of regulatory affairs in Ford's automotive safety office, and I'm pleased to be here today.

Ford Motor Company was built on the belief

that freedom of movement drive human progress. It's a belief that has always fueled our passion to create great cars and trucks, and today it drives our commitment to become the world's most trusted mobility company, designing smart vehicles for a smart world to help people move more safely, confidently and freely.

Ford is investing in an autonomous future and working to provide mobility solutions for transportation challenges affecting communities across the country and around the world. The potential benefits of autonomous technology are substantial, having the potential to save lives, expand mobility and reduce congestion. We have announced our intent to have an SAE Level 4 capable vehicle for commercial applications and mobility services like ride hailing and ride sharing early in the next decade. We are progressing our plan through investments in companies like Argoli I [phonetic], strategic partnerships, like the one we've announced with Lyft, by testing Level 4 autonomous vehicles on

public roads with safety drivers and various other research efforts.

Ford appreciates NHTSA's leadership and efforts to charter a policy pathway that will help accelerate the safe development and deployment of this technology and your willingness to continually improve this guidance.

Concerning the 12 elements in the guidance, I'd like to make the following points:

First, Ford appreciates NHTSA's clarification that the safety assessment letter is a voluntary safety self-assessment and applies to SAE Level 3 and above autonomous vehicles. We want to note that the applicability of the VSSA to test vehicles will likely be limited to a subset of 12 guide -- of the 12 guidance areas, especially in the early stages, as trained test drivers will likely supervise the systems, not unlike a Level 2 system, and will ultimately be responsible for engaging AV molds within the ODD and for the OEBRs and/or the fallback.

We continue to encourage consistency with SAE

J3016 for terms like system safety, OEBR and fallback, for example, as well as other industry standards for AVs as they become mature.

Additionally, we share Acting Administrator King's sentiments from the last workshop regarding working in a transparent manner to develop trust. We'll continue to educate and share information as part of our self-driving development effort through a variety of means, including the voluntary safety self-assessment.

Concerning the state guidance section, I'd like to emphasize the following points:

Ford shares NHTSA's views about the delineation of federal and state roles and that states should remove barriers to testing and deployment. We also appreciate the clarification that the VSSA should not be codified. We also encourage NHTSA to continue dialogue with states to insure that their legislative and regulatory activity does not lead to a patchwork of requirements and/or go beyond the issues addressed in the VSSA.

In closing, we are encouraged that NHTSA recognizes [inaudible] development in the AV space and that the agency is already working on ADS Version 3.0. We appreciate your efforts and want to continue to be constructive partners in this iterative process moving forward. We are living in exciting times and Ford wants to be a valued partner for delivering the potential of self-driving vehicles.

Thank you, and I'd be happy to take any questions you may have.

MS. SWEET: Thank you, Andre.

Amitai Bin-Nun, please.

MR. BIN-NUN: Good morning and thank you very much, not just for hosting today's listening session, but for all the sessions that you -- and dialogues that you've been part of and hosted in the last couple of years. I think that's really indicative of the extent to which NHTSA has -- has been open and receptive to industry and advocacy input on this and I wanted to thank you, and we look forward to continuing to work with you as

this policy is to be refined and we work together [inaudible] technology on the road.

My name is Amitai Bin-Nun. I'm the vice president of Autonomous Vehicles and Mobility Innovation and Securing America's Future Energy. For over a decade SAFE has worked to strengthen America's national and economic security by reducing our oil dependence in the transportation sector and [inaudible] resulting in exposure to the destructive impacts of all parts [inaudible]. SAFE is incredibly bullish about the potential for autonomous transportation to remake our society and make a tremendous difference by curbing the more 37,000 fatalities that are happening annually on U.S. roadways, addressing the dramatic underutilization inherent in the current vehicle ownership model, and as we heard so eloquently today from so many advocates, the ability to provide mobility and freedom to the disabled -- to the disabilities community, to older Americans and to those who are -- do not have full access to vehicles for economic reasons. And mostly

importantly, to see autonomous vehicle technology will likely secure dramatic reductions in oil demand through driving efficiency and fuel diversification, and that is why it is some important to get public policy right and why it's -- the [inaudible] of these are so important.

And that's why we're so appreciative of the work that the -- that NHTSA has put into the vision for safety policy document, which is a positive step towards giving industry and the public greater certainty and visibility into federal policy and as well as serving as a balance between the need for transparency on safety and leaving space for private sector innovation. We're looking forward to continuing to work with you, the administration, as it continues to update and expand your guidance on autonomous systems.

So specifically as to the vision for safety document that was issued in September, we wanted to offer two specific suggestions for refinement, both in this version of the policy and other policy guidance that may be coming down the road.

The first is around commercial vehicles and trucking. Trucking is incredibly important as the backbone of our economy. Trucks haul more than $700 billion worth of freight every year and we're expected to see that grow by 40 percent in the next two decades. At the same time, trucking uses close to 3 billion barrels of oil per day so innovation is not only essential for safety, but it can help us improve our energy security.

Later this week SAFE is going to be releasing a report in which we confirm that lower levels of automation of vehicles to [inaudible] for trucks already have demonstrated significant benefits for safety and energy efficiency and are poised to allow even greater benefits at higher levels of automation. So in this context it's really crucial to insure that policy does not get in the way of innovation in the heavy duty sector.

So in terms of -- the vision for safety guidance makes it clear that the Federal Order of Carrier Safety regulations place restrictions on the level of automation that's permitting in

trucking, and specifically around the need for a driver that is always behind the wheel.

Our view is that placing a CLN innovation is not in the national interest and we hope that you'll work with the Federal Order of Carrier Safety agency to send a message to the private sector that policymakers will endeavor and will collaborate across agency divides to create a pathway of all levels of automation that are safely achievable. And we believe that the potential benefits of offering a pathway towards higher levels of automation are too great to ignore and so we -- we would request you work with FMCSA to give clearer guidance to the private sector and some -- many startups who are working these area on this particular topic. And we would certainly be happy to serve as a resource in that regard.

Our second issue that we'd like -- the second issue that we'd like to comment on is on the topic of safety assurance. Earlier this year we had a report from the state's commission on autonomous

vehicle testing and safety led by General Mark Rosenkerr [phonetic], former chairman of the NDSB and Admiral Dennis Blair suggested that we have a national conversation about the acceptable level of safety benchmark in an autonomous vehicle. The commission suggested that autonomous vehicles be deployed once demonstrated to be as safe or safer than a human driver.

Creating such a benchmark would increase public confidence and help create uniformity from developers and create a standard for which they -- a standard for which policy could be anchored around. Now, certainly creating a benchmark is one thing and actually measuring levels of safety is another. So the commission suggested that AV developers work together to create an understanding about how to uniformly measure and create metrics around AV safety.

Recently we've seen some companies contribute to this base by putting together, putting out in the public in the public domain formal frameworks for safety as well as prima facie rules for

understanding the role and responsibilities of autonomous vehicles in an accident and determining whether one's at fault or not. I mean, I know how common they are, those specific -- without commenting on those specific frameworks that have been put forth, we see this positive that companies have put forth these public discussion and we'd love to see more of -- more of these frameworks or ideas for safety assurance being put forth. So we would suggest that NHTSA, within the general framework of the voluntary self-assessment, solicit industry thoughts on what would be the acceptable levels of AV safety and what's the pathway towards building metrics for measuring AV safety, which may be done within the context of the system safety element identified in the vision for safety and voluntary self-assessment.

So thank you again for giving us a chance to comment and we're eager to work with you going forward in an effort to make sure that the full scope of the benefits on autonomous vehicles are

unlocked as soon as possible.

Thank you very much.

MS. SWEET: Thank you. And Timothy Blubaugh, please come to the mic.

MR. BLUBAUGH: We moved so far back.

Thanks. My name is -- again, my name is Tim Blubaugh. I am with the Truck and Engine Manufacturers Association or EMA. EMA represents the manufacturers of a wide variety -- a wide variety of internal combustion engines and the major manufacturers of medium and heavy duty trucks, trucks with a gross vehicle weight rating greater than 10,000 pounds.

EMA members design and manufacture highly customized vehicles to perform a wide variety of commercial functions, including interstate trucking, regional freight shipping, local parcel pickup and delivery, refuse hauling and construction. We appreciate NHTSA's leadership in developing the latest guidance that provides a framework for development of the highly automated systems and I am pleased to have the opportunity

to provide some brief remarks from the heavy duty perspective.

We see the primary purpose of automated driving systems as assisting the driver in maintaining control of the vehicle and avoiding a crash. Heavy duty automated driving systems build off existing driver assistance systems on the road today from anti-lock braking to electronic stability control, to automatic emergency braking and adaptive cruise control.

Like existing driver assistance technologies, automated driving systems show great promise in reducing the human error of the driver that is a factor in most vehicle crashes.

We appreciate NHTSA's leadership in automated vehicles because, like the passenger car -- like passenger car manufacturers, heavy duty manufacturers require a follow-up framework for the deployment of technologies on new vehicles. A patchwork of state requirements would significantly harm our ability to efficiently supply commercial vehicle customers across the

country, particularly since many of our customers are in the interstate trucking business.

Unlike passenger car manufacturers, our customers are often motor carriers that are regulated by the Federal Motor Carrier Safety Administration. In addition to NHTSA's requirements that apply to newly manufactured vehicles, the FMCSA requirements control the drivers, equipment and operations of motor carriers.

Of note, FMCSA regulations currently require that a trained commercial driver must be behind the wheel at all times.

For that reason, and because commercial vehicle drivers do much more than drive the truck, we do not currently envision automated driving systems eliminating the need for the driver of a heavy duty vehicle.

Commercial drivers are the fact of their trucking business. They conduct critical pre-trip vehicle inspections, they secure the load being transported, they manage and report on the

logistics of delivering the load and they guard against theft of the vehicle and freight.

Accordingly, we see automated driving systems greatly reducing the human error involved in driving by performing more and more of the driving task, but not necessarily eliminating the role of the commercial vehicle driver altogether.

Additionally, unlike passenger cars, medium and heavy duty trucks are each highly customized to suit a particular fleet's needs. And in the aggregate, they are sold in relatively low volumes, approximately one tenth the volume, the annual volume of passenger cars. Based on the high customization and the low sales volumes, heavy duty vehicles have extended product lifecycles, with some models in production 20 or 30 years. Considering those long product lifecycles, we anticipate highly automated driving systems being deployed on existing conventional heavy duty vehicle platforms.

In conclusion, EMA members aim to improve the safety of medium and heavy duty vehicles by

developing automated driving systems that build on existing driver assistance technologies. As higher models of automated driving systems are developed, we do not foresee fundamental changes to heavy duty vehicle designs and as more of the driving task becomes automated, we still envision a crucial role for the commercial vehicle driver.

Finally, we are developing heavy duty automated driving systems to assist commercial vehicle drivers with the goal of reducing human error of the driver.

We appreciate NHTSA's latest guidance and its leadership in automated vehicle technologies and the opportunity to provide these comments.

Thank you.

MS. SWEET: Thank you, Tim. All right. Mike Cammisa, please.

MR. CAMMISA: Thanks. I'm Mike Cammisa with the American Trucking Associations. As a national representative of the trucking industry, ATA has a strong interest in highway safety for all motorists. Highways are the motor carriers' and

drivers' workplace employing more than 7.3 million people moving 10 and a half billion tons of freight annually. Trucking is the industry most responsible for moving America's economy.

The trucking industry moves 70.1 percent of our nation's domestic surface freight and is a critical player in the safety of our nation's roadways spending $9.5 billion per year on safety training, technology, equipment and management.

From a trucking industry perspective, the role of the federal government in leading the deployment of autonomous vehicles is essential. Our industry relies on an interstate highway system that facilitates the free flow of goods between the states. I'll have more to say on that during the discussion period on technical assistance to the states.

ATA is pleased that NHTSA expressly underscores its jurisdiction over and a need to consider the design aspects of all motor vehicles, including commercial vehicles, and motor vehicle equipment in developing these voluntary guidance

to insure that the policy framework is appropriate for all road users and vehicle types.

Recognizing that there are some differences between non-commercial vehicles and commercial vehicles, the flexibility offered by the voluntary guidance allows commercial vehicle manufacturers and technology companies who are developing automated driving systems for commercial vehicles to apply the guidance in a manner that reflects those differences while maintaining a consistent approach overall for all motor vehicles.

ATA supports NHTSA's decision to focus the voluntary guidance on SAE automation Levels 3 through 5 rather than 2 through 5 as in the original FAVP. SAE Level 2 requires the driver to remain engaged with the driving task and monitor the environment at all times, in contrast to Level 3 through 5 in which the automated driving system monitors the driving environment and performs the driving task.

As you know, and is the guide in states, the design aspects of all motor vehicles and motor

vehicle equipment come under NHTSA's jurisdiction while the Federal Motor Carrier Safety Administration regulates interstate motor carrier operations and commercial motor vehicle drivers. ATA encourages the two agencies to work in concert to remove barriers to innovation in automated technology through the review and modification where necessary of any regulations or standards that do not reflect the realities of automated technology.

DOT should expeditiously disclose the results of their reviews of the Federal Motor Carrier Safety Regulations and Federal Motor Safety Standards to allow for a productive period of public engagement prior to the initiation of any regulatory action. However, it is important that the review and required regulatory process do not hinder the development and deployment of automated technology which can be facilitated by exemptions and interpretations while the reviews and regulatory revisions are underway.

ATA believes that the voluntary safety self-

assessment provides organizations testing or deploying an automated driving system an opportunity to share information with the public that will provide assurance that the appropriate safety elements identified in the guidance were considered in the course of developing the relevant technology.

This information will also help to educate the public about the capabilities and limitations of automated driving systems and how members of the public should interact with automated driving -- automated vehicles.

ATA supports NHTSA's policy that the safety self-assessments are not exhaustive accounts of every action taken by an entity which could involve a disclosure of confidential business information and that NHTSA's approval of the safety self-assessment is not required, which would create a de facto premarket approval process that could delay testing and deployment.

Due to the differences in design approach -- I'm sorry -- due to the differences in approach to

the design of automated driving systems in general, as well as differences between commercial and passenger vehicles, ATA does not believe that there should be a standard format for the voluntary safety self-assessment at this time.

As NHTSA recognizes, developers of automated driving systems should retain the flexibility to communicate the relevant information in a format that reflects their approach, thus preserving opportunities for innovation in this rapidly developing area.

Finally, ATA would like to identify a contrast between a response NHTSA provided to Google in February 2016 regarding an automated driving system as the driver of the vehicle and reference in the voluntary guidance to current FMCSA regulations requiring a trained driver behind the wheel. The NHTSA response to Google stated that if no human occupant of the vehicle can actually drive the vehicle, it is more reasonable to identify the driver as whatever as to whoever is doing the driving. In this instance, an item of

motor vehicle equipment, the self-driving system, is actually driving the vehicle.

Now, the new NHTSA guidance states in its scope and purpose section currently per the Federal Motor Carrier Safety Regulations, a trained commercial driver must be behind the wheel at all times regardless of any automated driving technologies available on a commercial motor vehicle unless a petition for a waiver or exemption has been granted.

ATA would like to see FMCSA and NHTSA work together to determine how FMCSA's position on highly automated commercial vehicles without a human operator can best align with NHTSA's prior conclusion that a self-driving system may be a driver. To insure consistency between agencies within USDOT and avoid erecting any unnecessary barriers to development and deployment of automated vehicle technology for all types of vehicles.

Thank you.

MS. SWEET: Thanks, Mike.

That was the last of our registered speakers for those that wanted to provide oral -- verbal remarks on the voluntary guidance.

So I'm going to open the floor. If anyone else wants to make remarks specifically about the voluntary guidance, please go ahead and do so now. If not, we'll go ahead and we have a few folks that registered to speak with respect to the technical assistance to states.

So if anyone wants to say anything that did not say anything about the voluntary guidance, go ahead and stand up.

All right. So then we'll go ahead. So we have a few more folks that wanted to say something about technical assistance to states. So I'll start with William Wallace. Please.

MR. WALLACE: Thanks once again for holding this meeting. Consumers Union, once again we're the policy division of the independent non-profit Consumer Reports, thanks you for the opportunity to share oral comments on the technical assistance to states portion of the guidance document,

including best practices for state legislatures. We appreciate the work done by NHTSA and other stakeholders on this section of the document.

With technology rapidly advancing, it's appropriate to clearly describe and delineate federal and state rules in regulating automated vehicles. As the agency undertakes this task, we appreciate that NHTSA makes clear that the goal of state policies in this realm may not be uniformity or identical laws and regulations across all states, but rather sufficient consistency of laws and policies.

What this exercise really should be about is making sure that a consumer can do as NHTSA has previously suggested and drive across state lines without a worry more complicated than did the speed limit change. With that in mind, we caution against going too far in the name of avoiding a so-called patchwork. NHTSA and the states are critical partners in insuring consumer safety on our roads, and this partnership needs to continue and get stronger as automated driving technologies

advance. NHTSA should oppose as detrimental to safety policy proposals that would unduly restrict the ability of states to protect safety on public roads. This is especially true for measures that would invalidate state and local highway safety laws and undermine traditional state and local roles where a strong federal safety standard is not in place, leading to a vacuum that would put the consumers at risk.

NHTSA's technical assistance to states include several areas of useful guidance to the states, and we particularly appreciate the inclusion of best practices for states regarding the applications entities would submit to states and the permissions they would need to receive in order to put vehicles with automated driving systems on public roads. These kinds of sensible state requirements would provide an important layer of corporate accountability for consumers and help assure state officials that testing and deployment will be done responsibly.

At the same time, we are concerned that the

current guidance may understate the advisory role NHTSA can and should play to insure safety. NHTSA and states can and should work together. Their knowledge and skills can complement each other's. NHTSA can make up for areas in which states may lack adequate expertise and vice versa. We also are still concerned that state governors, motor vehicle administrators or other executive branch officials at the state level may grant permission for an automated vehicle to be deployed on public roads without its safety having been sufficiently insured.

We urge NHTSA to discourage states from making this mistake as it could profoundly jeopardize consumer safety and confidence in the technology. NHTSA should communicate clearly and forcibly with the state governor if it believes safety has not sufficiently been insured for a vehicle that the state intends to permit on its own roads.

As discussed, the technical assistance to states includes several areas in which it is appropriate and beneficial to consumer safety for

states to regulate the testing, deployment and operation of automated driving systems. This includes issues related to requirements for drivers of deployed vehicles, registration entitling these vehicles, law enforcement considerations, liability and insurance.

However, there are additional steps that NHTSA should recommend the states take. NHTSA should recommend that states requires dealers, rental companies and other retailers to clearly communicate the capabilities and limitations of automated systems to consumers to help prevent driver confusion over ADS capabilities which could lead to crashes, particularly of cars with the partially autonomous systems whose capabilities can most readily be overstated or misunderstood.

In addition, NHTSA should recommend that states prohibit the operation of vehicles' automated driving systems if needed equipment has been significantly damaged and not repaired.

Thank you for your work on ADS safety and for your consideration of our comments. We look

forward to continuing to work with NHTSA as it implements the ADS guidance and works with stakeholders on more detailed information for states to enhance their oversight of automated driving systems.

MS. SHEET: Thank you. Paul Scullion is still here?

MR. SCULLION: Good morning, again. As I mentioned, my name is Paul Scullion, senior manager of safety and connected automation at the Association of Global Automakers.

In the last few years states have become increasingly active in considering laws and regulations concerning the testing and deployment of automated vehicles. However, the way in which these policies are developed and implemented will likely impact the extent to which the benefits of automated vehicles can be realized.

One issue on which there is broad agreement, though, is policymakers -- among policymakers is that automated vehicles should be governed by consistent and national framework rather than the

patchwork of inconsistent state regulations.

We appreciate the agency providing additional clarification on the respective local, state and federal government in addressing AVs. States continue to play an important role in issues related to licensing, registration, insurance, liability and law enforcement as highly automated vehicles are integrated as part of the existing fleet.

Indeed, similar to the importance of NHTSA researching how best to modernize existing federal motor vehicle safety standards to enable HAVs. We must also seek to understand how the current state rules of the road may need to adapt to support or enable deployment or operation of automated vehicles both in the short term as well as the long term.

The technical assistance to states provides helpful guidance and we welcome the additional background that the agency has sought to provide all [inaudible] through revisions to the normal state policy as well as the frequently asked

questions section of the NHTSA AV website. However, with continued efforts to develop new laws and regulations there remains concerns that certain policy actions could significantly impact the development and ability of an automated vehicle to travel between states, particularly when a law or regulation impacts the performance or design of an AV or seeks to extend beyond areas already addressed by NHTSA.

As the technology continues to evolve, it is important to both understand the effectiveness and limitations of the policies already in place and to insure there's informed debates surrounding new laws and regulations being considered for the future.

The transition to a more automated fleet will not happen overnight. I believe NHTSA can play an important role in helping to bring together stakeholders from both the public and private sector and across all levels of government and through collaborative engagement, the stakeholders can better understand different perspectives on

the key questions and policy issues that need to be addressed and collectively work to address these in the short term and long term as the technology continues to evolve over time.

We, therefore, recommend that NHTSA consider organizing as part of its technical assistance to the states a public workshop or series of broad stakeholder engagement sessions to help convene a national discussion on the key policy issues affecting the states. This would not only help better align the respective roles of state and federal government, but also provide a forum for insuring a more uniformed approach to AV policy.

It's important that we get this right. And as I mentioned earlier, with increasing fatalities and the need to identify new opportunities for improving mobility and efficiency, we must collectively insure the right frameworks are in place both at the state and federal level to support safe testing and deployment.

I thank you again for the opportunity to provide comment here today and I'd be happy to

answer any questions you might have.

MS. SWEET: Thanks, Paul. Mike Cammisa.

MR. CAMMISA: Again, Mike Cammisa, American Trucking Associations. And thank you for this opportunity to speak.

Again, as the national representative of the trucking industry, ATA has a strong interest in highway safety for all motorists and we are -- the trucking industry is a critical player in the safety of our nation's roadways.

Automated and connected vehicle technologies have the potential to dramatically impact nearly all aspects of the trucking industry. These technologies can bring benefit to the areas of safety, environment, productivity, efficiency and driver health and wellness. Automated driving technologies is the next step in the evolution of the safety technology currently available and will help to further improve driver safety and productivity as well as the safety of other motorists and road users.

From a trucking industry perspective, the role

of the federal government in leading the deployment of autonomous technologies is essential. Our industry relies on an interstate highway system that facilitates the free flow of goods between states. As automated truck technology is commercialized, it is critical that state and local laws do not create disparities that limit commerce and obstruct the successful adoption of these potentially safety and productivity boosting technologies.

The federal government's clear leadership role in this area precludes any state efforts to regulate vehicle design as such state efforts would inherently give rise to conflict of the federal scheme.

ATA concurs with NHTSA's statement on page 18 of the guidance that states not codify the voluntary guidance as a legal requirement and that NHTSA should be the sole regulator of the safety design and performance aspects of automated system technology.

States should maintain their existing

responsibilities that do not interfere with the flow of interstate commerce. States should support operations of commercial motor vehicle automated and connected technologies within their rights of intrastate jurisdiction. Conflicting or duplicative requirements among federal and state agencies would create roadblocks to the deployment of automated technology, delaying the safety benefits, fuel savings, emission reductions and potential efficiency improvements to our nation's transportation system.

When conflicts arise between federal and state regulations, the federal government must take a clear leadership role and, if necessary, exercise federal preemption.

ATA also concurs with NHTSA's recommendation that that states should identify and change traffic laws and regulations that may serve as barriers to operation of automated driving systems.

Furthermore, ATA believes that states should commit to insuring a unified national framework to

facilitate the development, testing and deployment of commercialized automated and connected truck technology, including further harmonization of state level traffic and vehicle rules affecting the operation of such technology. States should take into consideration federal guidance and regulations and avoid placing any performance requirements on automated and connected trucks.

ATA supports the development of automated vehicle technology for all vehicle types. We commend DOT for recognizing the need to create a flexible framework for all vehicles on the roads and working with both passenger and commercial vehicle sectors in preparing this updated policy. NHTSA's voluntary guidance to developers of automated driving systems and the technical assistance to states provides a pathway for testing and deployment of automated technologies that sets clears roles and expectations for all stakeholders. This clarity will support the collection of more on-road data which will lead to a better understanding of how these technologies

may benefit the public along with considerations of how regulations may need to change to take advantage of the capabilities that this new technology provides.

Although not within NHTSA's authority to change, ATA supports expansion of the number and duration of exemptions that NHTSA is authorized to allow from current standards that prevent new safety technologies from being put on the road.

Expanded exemptions, along with clear federal preemption to insure that there will not be a disparate state -- set of state laws that unnecessarily impedes the testing and operation of vehicles with automated driving systems across state lines and in interstate commerce. These together would help collect real world data more quickly to assist in policy decisions and standards development.

Thanks.

MS. SWEET: Thank you, Mike.

All right. Again, I will open the floor if anyone has comments that they would like to make

regarding the technical assistance to states.

MR. SNYDER: Thank you very much. Dave Snyder, Property, Casualty Insurance Association of America.

I did address a couple of these points earlier on, but I wanted to make three points, particularly in connection with this part of the agenda.

The first is if the objective is to ward off state barriers to the appropriate implementation of the technology, it's critical that NHTSA not only talk about its role, but actually exercise its full regulatory authority. And in that way, that will become the best argument we think for why the states should not take or maintain various actions that would interfere with the safe introduction of this technology.

The second point is one that I made earlier, that state-regulated entities, our solvency is regulated at the state level, so it's very critical that the liability rules which are so interrelated with our solvency remain at the state

level and thoroughly regulated by the state commissioners.

The third point I want to make is don't leave out the localities in the -- in the work here. I know at the federal level you tend to look at the next level of the states, though the states do it all and the states determine all the rules. The fact of the matter is that first responders are largely locality, volunteers or career folks. Localities have a lot to do with the safety laws that are enacted and how they're enforced and applied. Even though it may seem at one level to be purely a state responsibility, the fact of the matter is that localities will become critical players in this effort. So we would urge that you move forward, not only involve the states in an appropriate way to assist in the safe innovation, but don't lose sight of the fact that localities need their own voice in this process because depending on the way the state laws are structured, localities may have a very, very significant role to play in all of this in

assuring that your objectives are met.

So thanks very much for the opportunity to make these additional comments.

Yes, sir.

MR. BEUSE: Yes, Mr. Snyder, I have one question about your first point, about NHTSA's exercising its full authority. [Inaudible] that's what he said. What exactly did you mean by that; the issuance of federal motor vehicle safety standards or is it something broader than that?

MR. SNYDER: Well, I think what I mean is giving the states and the public the assurance that, in fact, the standards are there, as soon as they can be appropriately created and if the full enforcement authority of NHTSA is there. I realize that in the early days reliance on some degree of voluntariness is absolutely necessary, but the question is going to recur, when are you going to establish standards and when are they going to be enforceable. And how are we going to deal with the potential new risk created by the technology? The technology, it's true, hopefully,

will reduce the risks that we see out there on the highway today with individual drivers making errors. However, if we inadvertently introduce even wider and systemic issues such as all cars stopping at the same time, all cars accelerating at the same time, are large numbers. You've actually undermined the very safety benefits that we all want from the technology.

So I think people are going to ask you, are you addressing the existing risks and continuing to address those, and what are you doing with regard to any new risk that will be introduced as a result of this technology. And I think if have a good answer to that, that then that is the most effective way to ward off the barriers that no one wants to see to the introduction of what could be really very positive from every standpoint.

So that's the fundamental point I made. The role is not just voluntary compliance that will ultimately, in our view, have to be a level below which you can't all go. But, again, it's much easier to say that don't do that and we recognize

that and we -- we are very anxious to work with all the stakeholders and you.

Thank you.

MR. BEUSE: Thank you.

MS. WILLIAMS: So is there anyone else -- anyone else who would like to make some oral remarks before we close out? So I think I'm going to have Debbie go ahead and cue up our slide that we have that just shows the formal public docket.

We want to thank everyone for their participation today. It was great to see so many familiar faces, but also so many new faces joining in on the discussions.

So beyond today's comments, we do have the formal dockets, one specific to the guidance, 2.0 guidance, and you can place those comments in that docket number, which is NHTSA-2017-0082. So the closing date for that docket is November 14th. So you have about a week.

And then if you have comments specifically to the workshop we held about two Fridays ago on the voluntary safety self-assessment, that docket

number is NHTSA-2017-0086.

We also have listed up on the slide the docket associated with the Paperwork Reduction Act associated with the guidance; so that's listed there as well, and that's NHTSA-2017-0083. Hopefully I got them all right off the top of my head. So -- but they are back here.

And, again, we just appreciate everyone for your candid remarks and we look forward to your comments to the docket. With that, we'll close out today's session. Thank you, everyone.

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I, KeVON CONGO, the officer before whom the foregoing proceeding was taken, do hereby certify that the proceedings were recorded by me and thereafter reduced to typewriting under my direction; that said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

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November 17, 2017

DATE PAMELA J. ALEXANDER