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TECHNICAL MEMORANDUM

TxDOT IAC – Technical Support to the CAV Task Force

DATE: December 21, 2020

TO: Zeke Reyna, TxDOT
Strategic Research Analyst, CAV

COPY TO: TTI_Reports@tti.tamu.edu
Tim Hein, Research Development Office, TTI
Ed Seymour, Executive Associate Agency Director, TTI
Robert Brydia, Senior Research Scientist, TTI

FROM: Beverly Kuhn Research Supervisor
Senior Research Engineer Texas A&M Transportation Institute

RE: Texas CAV Task Force: Full Membership Virtual Meeting
December 3, 2020 Meeting Notes

Attendees:

Aaron Gregg	Assoc Aus GovLP
Aidan Ali-Sullivan	Nuro
Alison Pascale	Audi
Andrea Chavez	Grace & McEwan Consulting, LLC
Andrea Gold	University of Texas Center for Transportation Research
Ashby Johnson	Capital Area Metropolitan Planning Organization
Ashley Meyers	Grace & McEwan Consulting (Waymo)
Avery Ash	Inrix
Beverly West	TxDOT Strategic Planning Division
Blake Calvert	Texas Governor’s Office
Bobby Cottam	Burns and McDonnell
Brad Stertz	Audi
Bradley Whellis	Texas Department of Transportation

Brent Skorup	Mercatus
Brian Daugherty	Motor and Equipment Manufacturers Association
Brian Moen	City of Frisco
Brian Steiner	Cisco
Caroline Love	Texas Department of Motor Vehicles
Charles Koonce	
Chase Bearden	Coalition of Texans with Disabilities
Daniel Goff	Kodiak Robotics
Darran Anderson	Texas Department of Transportation
David Dean	TEX 21
David Ruth	MoToGo LLC
Debra Richardson	Permian Strategic Partnership
Doug Hohulin	Nokia
Ed Seymour	Texas A&M Transportation Institute
Erik Simpson	SeatsX
Gary Wallace	SiriusXM
George Villarreal	Texas Department of Transportation
Gerardo Interiano	Aurora
Glenn Havinoviski	WGI
Glynn Spangenberg	Locomotion
Greg Winfree	Texas A&M Transportation Institute
Hannah Barron	Austin Transportation Smart Mobility Office
Ian Kinne	
Jackie Erikson	Edge Case Research Inc.
James Kuhr	Texas Department of Transportation
James Singer	Dell Technologies
Jamie Boone	TMNA
Jarred Howard	
Jason JonMichael	City of Austin
Jeff DeCoux	Autonomy Institute
Jennifer Rodriguez	Kodiak
Jimmy Archer	Texas Department of Motor Vehicles
Jordan (Alex) Payson	Austin Transportation Smart Mobility

Jordan Coleman	Kodiak
Joseph Hunt	Texas Department of Transportation
Joshua Hesterman	
Julia Monso Bustio	Cintra
Julian C. Gomez	Julian C. Gomez Law Firm
Kathleen Baireuther	Ford AV
Katie Herbek	Ford
Kellen Pucher	Panasonic
Kelly Curbow	AT&T
Kristie Chin	University of Texas Center for Transportation Research
Leighton Yates	Alliance for Automotive Innovation
Maniel Vineberg	CAVWAY
Marcelle Jones	Stantec
Marco Sylvester	
Mark Hilderbrand	Kiewit
Mark Worman	Texas Department of Insurance
Matthew Smith	Michael Baker International
Melanie Alvord	Texas Department of Public Safety
Mia Zmud	Central Texas Regional Mobility Authority
Michael Moore	UT Transportation Research
Mike Heath	Alliance Transportation Group
Monika Darwish	Embark
Morgan Avera	University of Texas Center for Transportation Research
Nirav Ved	Capital Area Metropolitan Planning Organization
Pamela Bailey-Campbell	Stantec
Rachelle Celebrezze	Cruise
Regan Ellmer	Texas Department of Insurance
Richard Bishop	Richard Bishop Consulting Inc.
Robert Brown	TuSimple
Robert Brydia	Texas A&M Transportation Institute
Sam Dreiman	Argo AI
Sam Lott	Automated Mobility Services, LLC
Scott Carlson	Iteris

Shelly Mellott	Texas Department of Motor Vehicles
Stacey Bennett	EasyMile
Steve Dellenback	Southwest Research Institute
Steve Pustlenyk	Central Texas Regional Mobility Authority
Steve Rundell	Texas Department of Public Safety
Tammy Meehan Russell	Plum Catalyst LLC
Ted Hamer	
Terry Martinez	TxDOT Government Affairs Division
Tomas Bamonte	North Central Texas Council of Governments
Tony Reinhart	Ford
Trent Thomas	Texas Department of Transportation
Vicki Kramer	
Wayne Marley	Accenture
Yvette Flores	Texas Department of Transportation
Zeke Reyna	Texas Department of Transportation

I. Welcome - Darran Anderson – TxDOT

- Thanks to Zeke, the TTI Team, the subcommittee members and writing teams who have contributed over the last year
- Welcome to this meeting which will be the culmination of this year

II. Roll Call of Voting Membership - Zeke Reyna – TxDOT

- Please raise your hand and unmute yourself on Teams if you would like to comment or ask a question.
- Meeting is being recorded for record keeping purposes
- Called roll of voting members, quorum present

III. 2020 Texas CAV Task Force Year in Review - Darran Anderson – TxDOT

- Presentation



2019 in Review



- Governor Abbott announced January 22, 2019 the Texas Department of Transportation would create a Connected and Autonomous Vehicle (CAV) Task Force to become a central point for CAV advancement in Texas.
- This is a collaborative effort, at the Governor's request. There is no legislative order, and it is not designated as a TTC advisory board. That was an intentional decision, to promote collaboration, and garner the greatest involvement from other state agencies, research institutions, and public/private stakeholders.
- Task Force members are all volunteers that were invited to participate based on years of engagement. There are no more than 25 voting members, representing the full spectrum of CAV stakeholders.
- In 2019, we worked with the Governor's office to scope mission, expectations/functions, concepts of deliverables, and an approved list of participants
- First full meeting held on October 23rd, 2019.
- Nov 2019 – Feb 2020 subcommittee focus areas were confirmed with the Governor's office.

Year in Review and Introduction to Final Report

December 3, 2020

Primary Functions

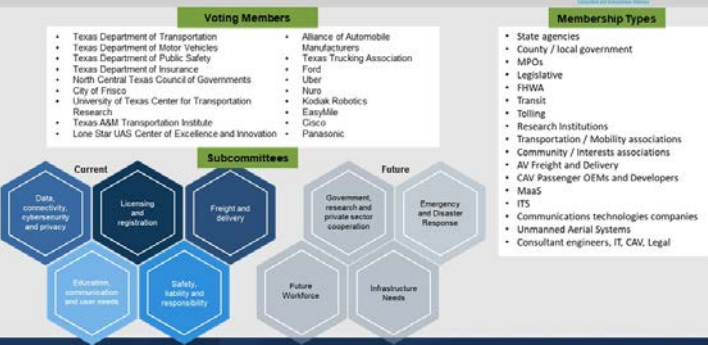


- The coordination and information source for CAV technologies use and testing in Texas
- Informing the public and leaders on current and future CAV advancements and what they mean in Texas. This includes reporting on current status, future concerns and how these technologies are changing future quality of life and well-being
- Making Texas a leader in understanding how to best prepare and wisely integrate CAV technologies in a positive, safe way. Promote positive development and experiences for the state.

Year in Review and Introduction to Final Report

December 3, 2020

Texas' Connected and Autonomous Vehicle Task Force



Year in Review and Introduction to Final Report

December 3, 2020


2020 in Review



- COVID impacted ability for participation in Spring 2020 as participants were focused on their internal operations. Subcommittee meetings began first week of June 2020. The five focus areas have been:
 - Data, Connectivity, Cyber Security, and Privacy
 - Education, Communication, and User Needs
 - Safety, Liability, and Responsibility
 - Licensing and Registration
 - Freight and Delivery
- A full task force meeting occurred July 21, 2020, to review progress and make initial plans for the remainder of the year.
- Subcommittees have continued to draft and edit white papers with multiple virtual meetings each, continuing through the end of November 2020.


Year in Review and Introduction to Final Report

December 3, 2020

2020 in Review 

- The full CAV task force meets today, December 3rd, 2020 for the main voting members to receive briefings from the subcommittee chairs on their work and products.
- There will also be a cover document to explain the white papers, it is in draft.
- An educational website is also under development since Summer 2020, and will be live once fully populated with the first version of information.
- We will work with the Governor's office following the meeting on the final process steps for accepting the products and distribution.
- There isn't a firm date set for acceptance/approval, we've been planning for that to occur in January 2021 to allow time in December/January for guidance and final reviews.

Year in Review and Introduction to Final Report December 3, 2020


Deliverables 

- **Primary deliverables**
 - Charged with white papers identifying way forward, challenges/issues and needed support among topics of subcommittees
 - Website as single portal for CAV activities in Texas
 - Identification of potential legislative clarification needs (currently opportunities for detailed work)
- **Secondary deliverables**
 - Pool of resources for interim charges or in-session hearings
 - Collaboration mechanism to tie industry-research-government together on initiatives in the state, and link to the Texas Innovation Alliance
 - Identification of future capabilities needed, or mission additions needed, for state agencies to address impacts of CAV
 - Pool of resources for educational outreach

Year in Review and Introduction to Final Report December 3, 2020

IV. Introduction to the 2020 Texas CAV Task Force Final Report - Darran Anderson – TxDOT

- Presentation (continued)

Introduction to Final Report 

- Culmination of many hours of work
- Subcommittees had great participation and input, and intensive writing and editing by TTI and CTR
- Dynamic process, informed by stakeholders of activities internal and external to Texas

Year in Review and Introduction to Final Report December 3, 2020

Key Guidance on Reports

- Be respectful of federal and state longstanding authorities
- Texas has an open approach to connected and automated deployments and testing
- Focus on informing the state of the current situation and key areas that need further examination as opportunities....inform on the intricacies
- The way forward for the Task Force will at least include continued development of opportunities and thoroughly examining any policy needs in a deliberate process that is informed by federal activities and state leaders' direction

Year in Review and Introduction to Final Report December 3, 2020

CAV Task Force Website

The key part of our initial efforts on communications and engagement

We want your input

Year in Review and Introduction to Final Report December 3, 2020





V. 2020 Texas CAV Final Report Walkthrough and Next Steps - Robert Brydia – Texas A&M Transportation Institute

- Presentation

Executive Summary

- Acknowledgements / Disclaimer / Charter
- Brief Summary of TTI Support to Texas CAV Task Force
- White Paper Executive Summaries
 - *Connected and Automated Vehicle Terminology*
 - *Connected and Automated Vehicle Data Issues and Opportunities*
 - *Understanding Perceptions and Opinions about Connected and Automated Vehicle Technology: Advancing the Dialogue*
 - *Connected and Automated Vehicle Licensing and Registration*
 - *Connected and Automated Vehicle Infrastructure Needs for Automated Freight*
 - *Automated Vehicle Safety Validation, Data, and Metrics*

Final Report Outline December 3, 2020

Final Report Chapters		
▪ 1: Conduct of Committee and Subcommittee Meetings		
▪ 2: Development of Task Force Web Site		
▪ 3: Development of White Papers		
▪ 4: Roster of CAV Task Force Voting Membership (Name/Affiliation)		
Final Report Outline	December 3, 2020	
Appendices (Full Text of White Papers)		
▪ A – <i>Connected and Automated Vehicle Terminology</i>	▪ All subcommittees	
▪ B – <i>Connected and Automated Vehicle Data Issues and Opportunities</i>	▪ Data, Connectivity, Cybersecurity, and Privacy	
▪ C – <i>Understanding Perceptions and Opinions about Connected and Automated Vehicle Technology: Advancing the Dialogue</i>	▪ Education, Communication, and User Needs	
▪ D – <i>Connected and Automated Vehicle Licensing and Registration</i>	▪ Licensing and Registration	
▪ E – <i>Connected and Automated Vehicle Infrastructure Needs for Automated Freight</i>	▪ Freight and Delivery	
▪ F – <i>Automated Vehicle Safety Validation, Data, and Metrics</i>	▪ Safety, Liability and Responsibility	
Final Report Outline	December 3, 2020	

VI. Task Force Subcommittee Reviews – Zeke Reyna, moderator

A. Data, Connectivity, Cyber Security and Privacy – Brian Steiner


○ Presentation



Agenda


- 1 Defining CAV
- 2 Regulations
- 3 Privacy and Security
- 4 Generation and Use
- 5 Sharing and Exchange
- 6 Deferred Topics

CV Versus AV



Connected Vehicles

- Applications
- Types of Connectivity

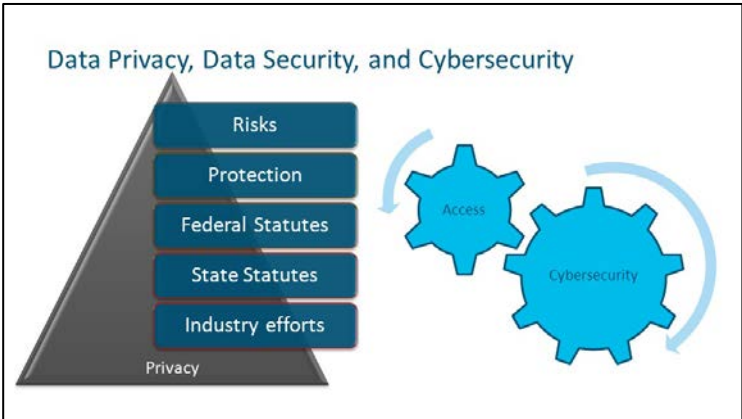


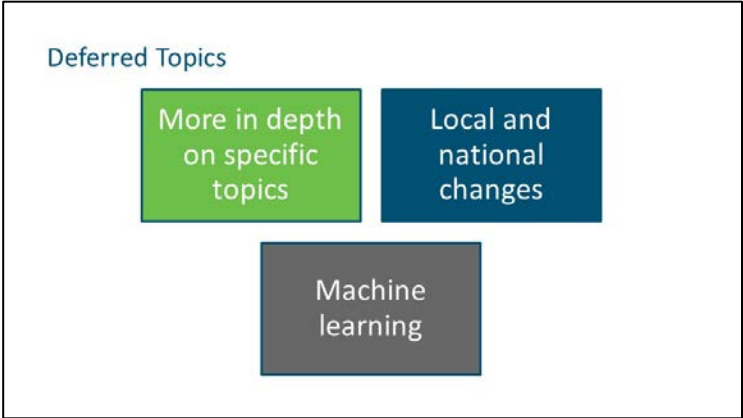
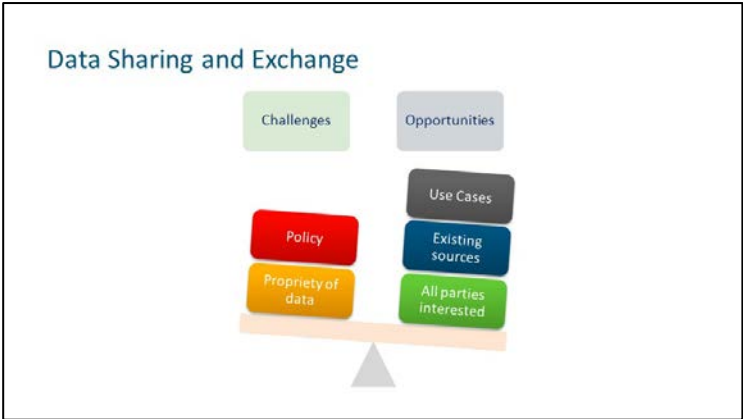
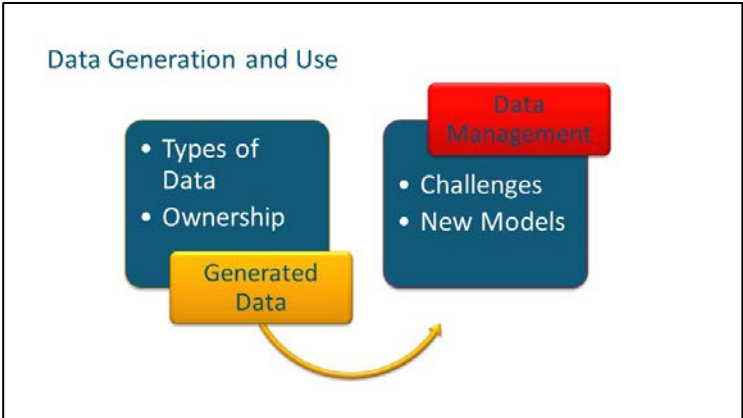
Automated Vehicles

- Levels of Automation
- Enabling Technologies

Government Regulations/Testing

	Federal	State	Local
Connected Vehicles	<ul style="list-style-type: none"> • USDOT CVPD • ATCMTD • SPaT Challenge • CV Pooled Fund • FHWA NHP • Breakup of 5,9 	<ul style="list-style-type: none"> • 8 States with pending legislation 	<ul style="list-style-type: none"> • Active 5.9Ghz ITS License • 3 ATCMTD • 6 SPaT Challenge
Automated Vehicles	<ul style="list-style-type: none"> • Several Bills in process • No NHSTA issuance 	<ul style="list-style-type: none"> • 29 States and DC have passed legislation (mostly testing and liability) 	<ul style="list-style-type: none"> • 2017 law authorizing testing • 20+ AV Pilots






- Questions/Comments
 - SPaT challenge (p10) question of intent related to DSRC – should Frisco be in that paragraph?
 - Comments submitted by subcommittees with poll for approval to publish (none returned: not to publish)
 - ✧ Related to Terminology, AV proving grounds being outdated reference, stakeholders needs, context related to Texas and automated vehicles (capture Texas regulations properly, references to code)
 - ✧ Reviewed and updated paper as appropriate

B. Education, Communication, and User Needs – Greg Winfree

- Presentation



**Understanding Perceptions and Opinions
 about Connected and Autonomous Vehicle
 Technology: Advancing the Dialogue**

Authors

- Education, Communication, and User Needs Subcommittee of the Texas Connected and Autonomous Vehicle Task Force
- Tina Geiselbrecht, Texas A&M Transportation Institute
- Kate Murdoch, Texas A&M Transportation Institute

Education, Communication, User Needs Subcommittee
December 2020

1

Framework

- **Objective:** support statewide efforts to inform and engage with agencies, stakeholders, industry, and the general public
- Work in Texas to date – pilots, demonstrations, surveys
 - Exposure and experience provide best educational opportunities
 - Survey in Frisco – 78% who rode in AV pilot had positive opinions. 49% who did not ride had positive opinions
 - Surveys in Arlington - +97% who rode AV pilot felt safe
- Education & outreach needed to build awareness, encourage engagement, and increase adoption

Education, Communication, User Needs Subcommittee
December 2020

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Multifaceted Challenges

- Lack of a common nomenclature may thwart public understanding and acceptance
 - Proper/preferred usage of autonomous vs. automated has not been settled by the industry
 - CAV proponents must agree upon common definitions to minimize public and stakeholder confusion and set expectations
 - OEMs likewise must agree upon common definitions to minimize public confusion (2019 AAA study found 20 different branded names for adaptive cruise control systems)
 - Common nomenclature would also alleviate public anxiety through the realization that automated features already exist in the form of ADAS technologies

Education, Communication, User Needs Subcommittee -
December 2020

3

Multifaceted Challenges

- Disaggregation of the CAV (connected, automated, autonomous, vehicles) acronym into its constituent parts will help the public understand the technological continuum
- Autonomous vehicles cover a wide spectrum -- Multiple educational modules will likely be required
- Building public trust is paramount yet we may have little control over public interaction with private operators on our roadways
 - Texas' institutes of higher education could be an honest broker here, anonymizing private operator data and mining it to develop useful information

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Stakeholder Engagement Plan

- Audience identification—Identifying the audience and their motivations will enable development of messages that empower supporters, convince uncertain individuals, and minimize the impact of opponents
- Market research—Learn about the audience, what they care about, and what messages will best convince them
- Message design—Several principles define the best ways to design a message, including keeping it simple, staying positive, using metaphors, making it personal, and offering a call to action
- Message delivery—Inconsistent delivery will derail even the best messages. Continually and consistently repeat the message so it will not get lost

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December 2020

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Moving Forward in Texas

- In addition to the website that has been stood up, messages need to be tailored to the audience and made available in the media of choice for the intended audience
- The Education Subcommittee necessarily focused initial efforts on education and outreach but realize that this is an ongoing commitment for the betterment of our State
 - Additional research will inform tactical education efforts that speak to emergent issues including impacts on workforce, education, equity & inclusion, land use & environment, economic development, freight, etc.

Education, Communication, User Needs Subcommittee -
December 2020

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- Questions/Comments
 - What are we going to do next? Develop engagement strategy?
 - ◇ From top line perspective, need to prioritize and identify the stratification of audiences who receive the message. Be deliberate in how we shape messaging targeted to specific audience
 - ◇ Not a one-size fits all solution
 - Comments submitted by subcommittees with poll for approval to publish (none returned: not to publish)
 - ◇ Related to strengthening some references, increase information related to PAVE

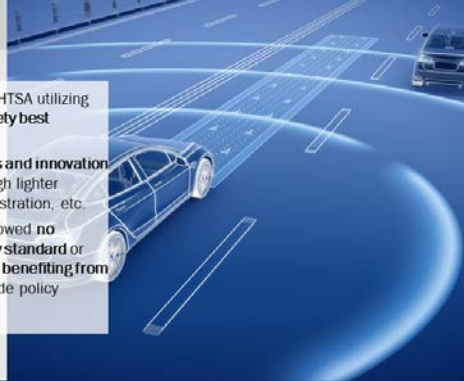
C. Safety, Liability, and Responsibility – Captain Steve Rundell and Dr. Mike Walton

- Presentation – Andrea Gold



Introduction

- Safety authority lies with NHTSA utilizing VSSAs to **showcase AV safety best practices**
- Texas promotes a **business and innovation friendly environment** through lighter legislation of licensing, registration, etc.
- State of practice review showed **no consensus on single safety standard** or approach, with **regulations benefiting from mature deployments** to guide policy development



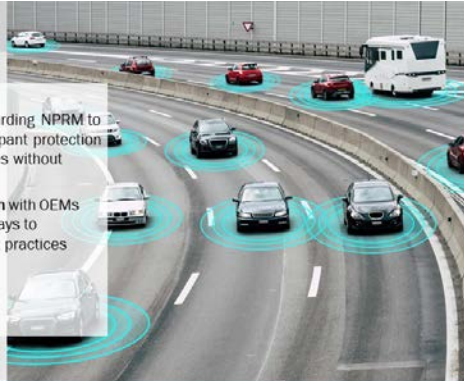
CAV Task Force

December 3, 2020

FEDERAL SAFETY STANDARDS AND POLICY DEVELOPMENTS

Opportunities

- **Monitor** developments regarding NPRM to modernize FMVSS for occupant protection safety standards for vehicles without manual controls
- Continued **Open Discussion** with OEMs and Federal Agencies on ways to demonstrate AV safety best practices



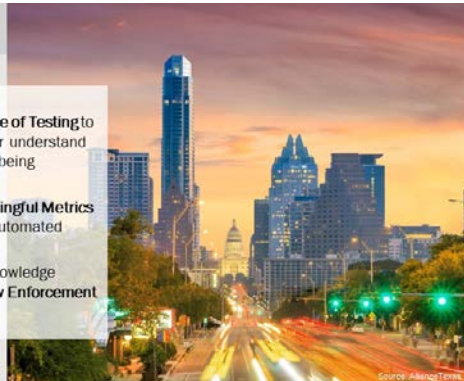
CAV Task Force

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STATE SAFETY STANDARDS AND POLICY DEVELOPMENTS

Opportunities

- Develop guidance on **Notice of Testing** to allow for the public to better understand areas with which testing is being conducted
- Identify **Reliable and Meaningful Metrics** on safety performance of automated vehicle technologies
- Enhance first responder knowledge through the creation of **Law Enforcement Interaction Protocols**



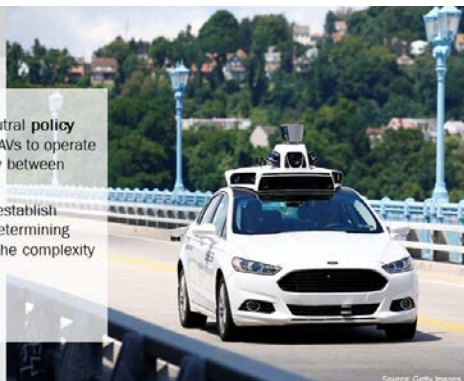
CAV Task Force

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INTERNATIONAL STANDARDS ORGANIZATIONS AND PRIVATE COMPANIES

Opportunities

- Support technologically neutral **policy development** which allows AVs to operate in state with interoperability between platforms
- **Monitor** ongoing efforts to establish standardized methods of determining liability with recognition of the complexity of conditional automation




CAV Task Force

December 3, 2020

REPORTING CRASH FACTORS

Opportunities

- **Identify** potential questions and factors to include into state crash report forms
- **Collaborate** between operators, developers, and law enforcement to explore how to incorporate AV and automated driving functions into state crash report forms
- **Discuss** data sharing opportunities including what can and cannot be shared in the event of an AV crash



Source: Getty Images

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COLLABORATION OPPORTUNITIES

Opportunities

- Design an **AV Education** campaign developed with national partners
- Work with AV developers to create a website of **Deployment Highlights** showing testing and deployment within Texas
- Promote on-going and open public-private **stakeholder dialogue** on safety information and transparency



CAV Task Force December 3, 2020

NEXT STEPS

Action Items

- Ongoing review and updates to policies and regulations to remove barriers to AV deployment
- Coordinate with Freight subcommittee to include infrastructure needs for passenger vehicles
- Monitor NHTSA NPRMs

Future Topics

- AV Liability
- Deep Dive on Safety Metrics
- Deep Dive on first responder protocols

CAV Task Force December 3, 2020

- Questions/Comments
 - Only paper that had 3 “No” votes out of 17
 - ✧ No verbal comments made for clarification of issues
 - Written comments submitted
 - ✧ Regarding issue with title related to content
 - Comments submitted by subcommittees with poll for approval to publish
 - ✧ Concern paper had gaps in information
 - ✧ There’s much more to go on with standards development
 - ✧ More relevant standards than best practices
 - ✧ Paper emphasizing one particular standard over another

- The threat is when CAVs are mixed with human drivers. How has Safety committee addressed this issue and whether state proactive?
 - ✧ Committee going to continue to monitor the situation. Ongoing discussion regarding current VSSAs and looking at ways in which Texas can follow Federal guidelines to establish safety. Discussion on education as a way to support development and deployment of different projects
 - ✧ Important for Texas to be taking proactive approach to safety

D. Licensing and Registration – Shelly Mellott

- Presentation

Connected and Autonomous Vehicle Task Force
Subcommittee on Licensing and Registration

Topics Covered

- Public Agency Roles and Responsibilities
- Other Roles and Responsibilities
- Types of Automated and Connected Vehicle Active in Texas

Topics Covered

- Regulation of Drivers and Operators
- Regulation of Vehicles
- Other Regulations and Issues

Topics Covered

Case Studies
Involving
Licensing and
Registration

Balancing
Regulatory Posture
and Economic
Development

Opportunities in
Texas

Thank you to the Sub-Committee Members

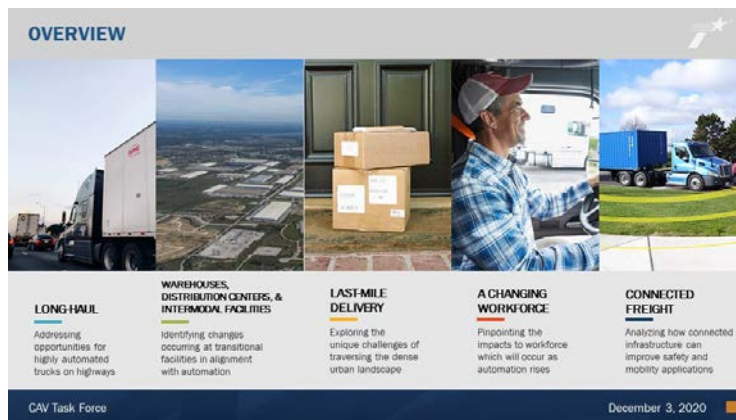
- Aidan Aili-Sullivan
- Alison Pascale
- Anne O'Ryan
- Brian Moen
- Chris Miller
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- Jason JonMichael
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- Marcelle Jones
- Monika Darwish
- Rachelle Celebrezze
- Rob Braziel
- Sam Dreiman
- Stacey Bennett
- Tammy Meehan Russell
- Trevor Theunissen

- Questions/Comments
 - Can you call out opportunities that were identified in the paper relative to this?
 - ✧ Opportunities for additional clarity in the interaction with current statutes and regulations in AV development with respect to regulatory flexibility, stakeholder collaboration, and alternative opportunities (AV operation entirely by remote operators such as tele-operation) and how those types of deployments may interact with appropriate state agencies
 - ✧ Opportunities with regard to stakeholder discussion areas, including law enforcement engagement, public transportation engagement and potential for future regulation and planning requirements: surface transportation regulation, law enforcement (Chapter 545 of Texas Transportation Code)
 - ✧ Public transportation agencies messaging opportunities
 - ✧ Inspection requirements if no driver, do they still apply
 - ✧ Perceived issue dealer/manufacturer relationship in the state with regard to titling
 - Comments submitted by subcommittees with poll for approval to publish (none returned: not to publish)

- ✧ Ensuring right reference, right code
- ✧ Licensing and regulation on PDDs, proper code regarding speed limits

E. Freight and Delivery – Daniel Goff and Dr. Mike Walton

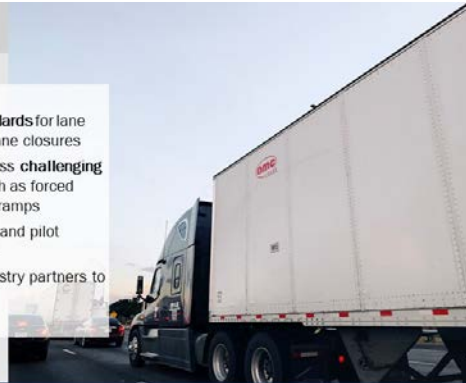
- Presentation – Kristie Chin



LONG-HAUL

Opportunities

- Refine **infrastructure standards** for lane striping, work zones, and lane closures
- Prioritize research to address **challenging roadway environments** such as forced merges and entrance/exit ramps
- Identify potential locations and pilot solutions for **transfer hubs**
- Encourage TxDOT and industry partners to **share information**



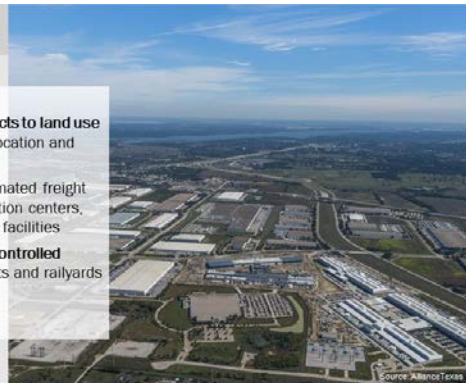
CAV Task Force

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WAREHOUSES, DISTRIBUTION CENTERS, & INTERMODAL FACILITIES

Opportunities

- Assess the long-term **impacts to land use** by monitoring changes in location and structure of facilities
- Support **test beds** for automated freight using warehouses, distribution centers, truckstops, and intermodal facilities
- Monitor developments in **controlled environments**, such as ports and railyards



CAV Task Force

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LAST-MILE DELIVERY

Opportunities

- Designate a **roadway network** for automated delivery
- Consider posting **signage** along automated delivery routes and updating the MUTCD where applicable
- Support **policy development** which allows AVs to operate in state without inapplicable equipment requirements



CAV Task Force

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A CHANGING WORKFORCE

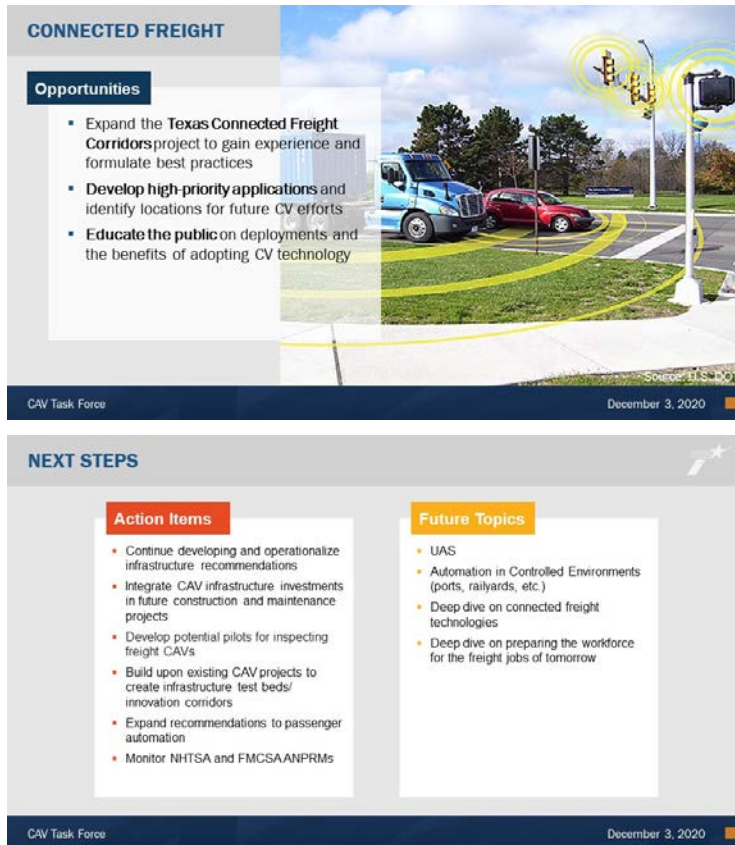
Opportunities

- Prioritize **upskilling for truck drivers** and others who may potentially be displaced
- Encourage companies that are testing in Texas to **partner with local educational institutions**
- **Integrate training** in CAV technologies into existing workforce development programs



CAV Task Force

December 3, 2020



- Questions/Comments
 - No verbal comments
 - Comments submitted by subcommittees with poll for approval to publish (none returned: not to publish)
 - ✧ Most felt this paper in good shape
 - ✧ Nothing substantive in written comments submitted other than grammar and punctuation

VII. Final Report Discussion - Darran Anderson – TxDOT

- All papers have been updated with regard to DSRC ruling
- Consider addressing pedestrian and vulnerable road user issues in future
- Questions submitted in comments section:
 - Have we gotten any guidance from Gov. Office about focus areas for Task Force going forward?
 - Important to see how govt views the industry
 - Do industry members on Task Force have ideas for how we can make Texas more attractive place for deployment/facilities, leveraging Task Force work (note recently announced Waymo R&D centers going to Ohio/CA, not TX)
 - Texas offers welcoming attitude, causing industry to come. This Task Force has been an excellent vehicle for industry to get their voice out

- Important for Texas to brag about progress and why Texas is THE place for deployment and innovation
 - These are not problems that can be solved alone by either side but by proactive engagement of public and private sectors. It is the cross section of stake holders throughout Texas that really makes us differentiated as a place to work and to bring AVs to life and to the world.
 - Consider opportunities to work regionally with likeminded states to harmonize approaches being done
 - Should Task Force develop a "roadshow" format and engage with MPOs, IOOs, Chambers, community groups about TF work in coming year
 - Would be of great value with a number of organizations to bring further understanding to them.
 - Does Task Force have the resources to keep this good work going at this or elevated level going forward?
 - TxDOT will continue to do this, as our greatest resource is people and time. Hope that resource of volunteers continues
- Other comments:
 - Relative to freight, some emphasis on partization of infrastructure would be helpful. With regard to lane striping seems something straight forward (not simple) to do
 - Concerns as to fact didn't have unanimous consent, but not surprised. Excellent collaboration between public and private sectors, but it remains very difficult to find specific focus and meeting perfect point of resolution in all areas.
 - Recognize liability issues and safety case concerns but also realize that this will be an ongoing process, revisiting all these areas so that everyone can be heard

VIII. Texas CAV Task Force 2021 Next Steps - Zeke Reyna – TxDOT

- Giving everyone another week to submit comments (due by Friday, December 11, 2020)
- Goal to wrap this up and get to Governor's office by mid-January, at the latest
- Call or email Zeke with further questions and/or comments
- What Lies ahead
 - Full calendar year of operations
 - 3-4 full task force meetings
 - Additional subcommittee meetings
 - Further develop ideas from 2020 subcommittees
 - Legislative session beginning of January
 - National conversation and how it impacts Texas
 - Will see what role Governor's office desires we take
 - National state and local impacts – actively engage in meeting with task force learning from them
 - Future subcommittees
 - Four ideas for committees proposed that still need investigation

- CAVTF Website: want this to be envy of all CAV task forces. Please reach out because we need your input (and want it)

IX. Final Comments - Darran Anderson – TxDOT

- Have new liaison in Governor's office – Blake Calvert. The way forward is related to coordination with him
- Appreciate participant involvement as it guides development and direction
- Will continue to keep all informed of progress and updates