

MEETING NOTES

Iowa Advisory Council on Automated Transportation (ATC) Public Safety & Enforcement (PS&E) Subcommittee Meeting

Wednesday, June 29, 2022

1:00-2:00 pm CT

Action Items:

- Continue conversations with Toni Smith regarding content for Automated Driving System (ADS) registration as well as Law Enforcement Protocols (LEP) and/or Law Enforcement Interaction Plans (LEIP)
- Continue exploring possible state law changes, with Mark Wyatt, related to bicyclist operations and future advanced technology deployments
- Continue exploring VRU field testing opportunities with Lisa Spellman
- Monitor VTTI and USDOJ ADS research with Col. Fulk
- AAMVA and IACP annual meetings engagement on ADAS/ADS and key outcomes with Col. Fulk

1. Welcome and introductions – Colonel Nathan Fulk, Public Safety and Enforcement Subcommittee Chair

a. Attendees – 31 attendees

- Nathan Fulk – Iowa State Patrol (PS & E Chair)
- Dan McGehee – University of Iowa, National Advanced Driving Simulator
- Stephen Bayens – Iowa Department of Public Safety
- Nathan Ludwig – Iowa State Patrol
- Lisa Spellman – Vulnerable Road User Safety Consortium
- Susan deCourcy – National Highway Traffic Safety Administration
- Shirley McGuire – Federal Motor Carrier Safety Administration
- Mark Wyatt – Iowa Bicycle Coalition
- Meredith Mitts – AAA The Auto Club Group – Minnesota/Iowa
- Zachary Hans, Skylar Knickerbocker, Jonathan Wood – Iowa State University
- Omar Ahmad, Cher Carney, Cherie Roe – University of Iowa, National Advanced Driving Simulator
- Steve Gent, Tim Simodines, Angel Robinson, Jenna Anderson, Tom Bruun, Hossein Naraghi, Toni Smith, Ashley Hochberger, Alexander Jansen, Stefani Meyer, Samuel Sturtz, Josh Halterman, Dennis Kleen, Andrew Lewis, Steven Stonehocker, Adam Shell – Iowa DOT

b. New members

- i. Hossein Naraghi – Traffic & Safety, Iowa DOT
- ii. Lisa Spellman – Vulnerable Road User (VRU) Safety Consortium (SAE ITC Program)

2. Reconstruction and visualization of next generation automated vehicles – Dan McGehee, Director, National Advanced Driving Simulator (NADS), University of Iowa (presentation title changed after submission of the agenda)

- a. Dan is the director at the National Advanced Driving Simulator. From bench to policy, his research experience integrates engineering, medicine, public health, and public policy. He has over a million miles of naturalistic and on-road data human factors and driver behavior testing experience and has been the principal investigator on several automated driving projects include Automated Driving Systems (ADS) for Rural America and the MyCarDoesWhat educational campaign on Advanced Driver Assistance Systems (ADAS).
- b. NADS was a support contractor for the National Transportation Safety Board (NTSB) to assist with a project that looked at crash reconstructions with ADAS as well as Tesla crashes.
- c. Crash reconstruction starts from the end point and works backwards. Event data recorders (EDR) are the “black box” of modern passenger vehicles. These devices are used in crash reconstruction because they collect data from the vehicle that can be downloaded by law enforcement with a special kit. The

current EDR collects about 8 to 10 channels. Today's EDR collects data related to vehicle speed, steering wheel position, throttle position, brake status, force at impact, airbag deployment, etc. The data included is for about 3 to 6 seconds prior to impact. As more vehicles will have ADAS, EDRs will be found in more cars and collect more advanced data than today. It is important to understand that a Tesla is not "automated". It uses ADAS that allows the driver to drive down the freeway with very limited steering input. Tesla has hundreds of channels of data which are encrypted, and Tesla does not willingly give the data out. This lack of communication has led to frustration.

- d. NADS reviewed a crash involving a Tesla Model X that took place in March 2019 in Mountain View, CA. The [NTSB Report](#) indicated that a 38-year-old driver had "Autopilot" engaged at the time of the crash. Autopilot means that the vehicle was tracking lane position and maintaining speed relative to other vehicles around it. Although the Tesla requires the driver to occasionally interact with the steering wheel, it is possible that drivers unconsciously interact with the wheel and are not focusing on the road to take over when needed. It is important that consumers understand that the vehicle is not automated and still requires focus on the road ahead.
- e. The crash occurred in a high occupancy exit lane with a gore area that separated the exit and the main lane. There was an attenuator in the jersey area that was crushed a few days earlier. The vehicle was going about 70.8 miles per hour at impact. The lane markings near this crash were worn, so it is likely that the auto vision system likely lost the lane prediction line and used the stronger line. It is important to remember that current ADAS system rely heavily on paint. Future systems will integrate high-definition maps which may assist in times of uncertainty like this one. As in all crashes, a driver's performance needs to be taken into consideration. This driver had an unobstructed view and numerous visual cues of the hazard ahead and took no evasive action which indicates inattention to the road ahead. The data collected from the Tesla showed that the driver's hands were not on the wheel at the time of the crash.
- f. The NADS team used the NADS-1 simulator to develop a reconstruction and visualization of what occurred in Mountain View Crash. The NADS-1 is a high-fidelity motion simulator that integrates sound, acceleration, braking, and the other details of the vehicle. The team developed a 3-D terrain model from available terrain and environmental data obtained from the crash. The team recreated the scene and the Tesla Model X so that the eye point and the dynamics of the Tesla responded accurately during the simulation. A short video of the simulation was shown from the driver's point of view. The simulation shows that the Tesla begins to pick up the brighter line and essentially drives itself into the attenuator. The video shows how much time was available for the driver to look up and respond and avoid the crash. Additional simulation viewpoints or details are available upon request.

3. PS&E Work plan & Tactical Actions Up

- a. Col. Fulk provided an overview of the PS & E subcommittee tactics which are identified in the AT vision as well as the subcommittee workplan. Please contact Col. Fulk, Adam or Cherie if interested in moving any of these items forward.
- b. Col. Fulk summarized an opportunity of engagement with Virginia Tech Transportation Institute (VTTI) and the International Association of Chiefs of Police (IACP). VTTI and IACP conducted a focus group as part of a United States Department of Justice (USDOJ) sponsored research project that titled public safety considerations for ADS deployments. This focus group was made of members from the Oregon State Patrol, Texas Department of Public Safety, a sheriff's department in the Midwest, and members from Iowa participated in this group. The group discussed their familiarity with and experiences with ADS and ADAS systems. The discussion included insights into commercial motor vehicle with ADS as well as how to respond to incidents involving ADS and ADAS vehicles. Questions brought up during this focus group included: what kind of education will be provided, what barriers are there to training, and most importantly what the next steps are. The good news is that Iowa is part of this program to develop a training program that will be rolled out nationwide.
- c. Adam provided a summary for the AV Crash Data working group meetings. Members represent the Iowa DOT and Iowa State Patrol.

- i. Members of the group were allowed to sit in on the [AASTHO State CAV Community of Practice](#) meeting held on April 4, 2022. This meeting discussed the National Highway Traffic Safety Administration (NHTSA) Standard General Order (SGO) for crash reporting with vehicles with ADAS or ADS.
- ii. An AV Crash Data Working meeting was held on April 14, 2022. A summary was provided to the members who were unable to attend the AASTHO meeting. Emphasis was given to considerations for the SGO in Iowa. There was a brief discussion regarding the status of changes to the Model Minimum Uniform Crash Criteria (MMUCC) which could potentially influence changes to crash reporting in Iowa and include identification of ADAS or ADS on crash reports. Associated federal Rulemaking involving the MMUCC ([Item 1](#), [Item 2](#)) was included.
- iii. On June 15th, NHTSA held a briefing to provide an update on activities related to the SGO. The SGO website was updated and report and data content was added [NHTSA Standing General Order requiring crashes for L2 to L5 vehicles](#).
- iv. Adam provided information regarding the SGO purpose and reporting differences with L2 ADAS and ADS. Maps of the US were shown of the number of reported incidents per state. During the data collection period from June 2021 to May 2022, there have been 130 reported ADS incidents and 392 reported ADAS incidents. Iowa had two ADAS incidents reported. One involved an animal, one involved the vehicle hitting a median cable barrier. In the latter case, it was reported that the lane-assist features contributed to the vehicle leaving the roadway. There is currently no direct involvement with DOT or any sort of public safety groups so this could be something to engage with NHTSA about. This published data is valuable and is an important first step; however more work needs to be done with this effort. Adam encouraged subcommittee members to review the data.
- v. Dan McGehee added a note of clarification about the data. He highlighted that NHTSA is interested in the details about when ADAS is present or a vehicle has that system, and if so, did it contribute. Sometimes it may have been present and engaged but also may have mitigated or braked before a crash that would have been more severe. Crashes that only have property damage often have less detailed crash reports.
- d. Col. Fulk will be attending the [American Association of Motor Vehicle Administrators \(AAMVA\) Annual International Conference](#) in September. One of the sessions he plans to attend, focuses on the interaction of law enforcement with automated vehicles. He will provide summary at the next subcommittee meeting.

4. Advanced Technologies Project & Opportunities Discussion – All subcommittee members

- a. March 2022 ATC Meeting Charge - The Iowa Advisory Council on Automated Transportation is intended to increase roadway safety, personal mobility, and freight movement within the state of Iowa by advancing highly automated vehicle technologies. At the last ATC meeting, Director Marler encouraged the ATC and its subcommittees to:
 - i. Explore opportunities to deploy advanced technologies this year
 - ii. Focus on freight, mobility, or safety
 - iii. Pursue discretionary grants
- b. Adam, subcommittee chairs, and other stakeholders have brainstormed potential advanced technology projects in Iowa related to each subcommittee. Projects related to the Public Safety and Enforcement subcommittee are cross-cutting with the other committees and focus on law enforcement and first responder training and to address vulnerable road users (VRU) safety. Some AT activities may already be in discussions at certain agencies and university partners, and all transportation stakeholders are encouraged to connect and collaborate on opportunities.
- c. The Infrastructure Investment and Jobs Act (IIJA) includes more than \$1 trillion to strengthen an array of government systems and services. The massive piece of legislation provides grants to state and local governments to improve transportation, cybersecurity, public safety, water and energy utilities,

broadband internet connectivity, and more. The ATC, its chairs, and stakeholders across the state are monitoring opportunities and funding streams to address current needs and advance transportation goals related to AT.

- d. Notices of funding opportunities have been opening monthly in response to the passing of the IJJA. The ATC is monitoring these streams regarding their purpose, criteria, funding amount, and timeline. While some opportunities have already opened and closed, others are soon to be opened. Many of these funding opportunities are part of multi-year programs and will have yearly call for proposals, and other opportunities are open until funding is expended. Funding from these programs will likely only be one-time so it's important to consider how to sustain activities beyond funding. Iowa's transportation stakeholders should work to identify needs and specific use cases first, and then they can begin to identify funding opportunities and partners.
- e. Subcommittee Discussion
 - i. Toni Smith, Iowa DOT, asked a question regarding the target audience of the training (first responders, ADS businesses, or both) being discussed. Col. Fulk highlighted that the current project with USDOJ and IACP is directly related to law enforcement and first responder safety only. Toni is interested in more information about the training because it might be useful with developing appropriate content for the title and registration documents used to register an ADS vehicle. A meeting will be set up to discuss this topic further. There are plans to discuss possible Law Enforcement Protocols (LEP) or Law Enforcement Interaction Plans (LEIP).
 - ii. Mark Wyatt, Bicycle Coalition, expressed thoughts about how some laws may need to be modified to address how ADS vehicles are programmed to interact with vulnerable road users. Used the example that currently there is only a requirement to yield to pedestrians and not to bicyclists in a crosswalk. Col. Fulk encouraged Mark to keep subcommittee informed of the statutory laws that are of priority to the coalition.
 - iii. Lisa Spellman, VRU Safety Consortium (SAE ITC Program), leads a global consortium that is facilitating conversations between shared roadway users (vehicles, micro mobility users, etc.) like the topics that the PS&E subcommittee are discussing. Collaboration opportunities will be available for this subcommittee and others in Iowa to provide feedback to documents or to participate in field tests. Another possible opportunity for collaboration exists with the SAE On-Road Automated Driving (ORAD) committee. This committee is taking an inventory of lane making widths and the development of other AV accessibility requirements. Lisa will send to Adam to share with the committee.
 - iv. Steve Gent, Iowa DOT, informed the group of a program that will use speed feedback signs as traffic approaches on primary highway systems into small communities. The goal is to get drivers to slow down when entering these communities to help pedestrians and bicyclists.

5. Information and key meeting dates

- a. [Policy & Legislation Subcommittee Meeting](#) – Tuesday, May 17 from 1-2 pm
 - i. *Mobility Justice in AV Planning and Community Readiness* – Dr. Laura Sandt, Senior Research Associate, University of North Carolina Safety Research Center
- b. [Economic Development & Infrastructure Readiness Joint Subcommittee Meeting](#) – Tuesday, May 24 from 1-2 pm
 - i. *Autonomous Vehicles Navigating to American Cities and Towns* – Brittney Kohler, Legislative Director, Transportation & Infrastructure Service, National League of Cities
- c. **AT Council Meeting** - Wednesday, October 5 from 10 am - 12 pm
 - i. *Presentations* – Paul Steier, Director Vehicle Programs, AAMVA; Robert Heilman, Director at the Highly Automated Systems Safety Center of Excellence, US DOT; Neal Hawkins, Associate Director, InTrans Iowa State University

ATC SUBCOMMITTEE MEETING

Public Safety &
Enforcement
June 29, 2022

Automated drive

Destination: 50° 43' 50.34" N - 6° 10' 55.294" E
Arrival: 08:55 pm - Distance 783 miles

TCP/IP: 192.56.327.684.1
SYNC: **enabled** | Sensors: **active** | Cameras: **active**

Automated drive

Destination: 50° 43' 50.34" N - 6° 10' 55.294" E
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MEETING AGENDA

1. **Welcome and introductions** – Col. Nathan Fulk, Public Safety & Enforcement Subcommittee Chair
2. **Supporting AV and ADAS Crash Reconstruction for the NTSB** (25 minutes)
 - a. Dan McGehee, Director, National Advanced Driving Simulator
3. **PS&E Work Plan & Tactical Actions or Updates** (10 minutes)
 - a. Virginia Tech Transportation Institute (VTI) Focus Group Discussion – US DOJ sponsored research project Public Safety Considerations for ADS Deployment
 - b. AV Crash Data Working Group
 - a. NHTSA Standing General Order Requiring Crashes for L2 – L5 equipped vehicles
4. **Advanced Technologies Project & Opportunities Discussion** (25 minutes)
 - a. March 2022 ATC Meeting Charge
 - i. Explore opportunities to deploy advanced technology this year
 - ii. Focus on freight, mobility, or safety
 - iii. Pursue discretionary grants
5. **Information and key upcoming dates**
 - a. Policy & Legislation Subcommittee Meeting – Tuesday, May 17 from 1-2 pm
 - b. Economic Development & Infrastructure Readiness Joint Subcommittee Meeting – Tuesday, May 24 from 1-2 pm
 - c. AT Council Meeting - Wednesday, October 5 from 10 am-12 pm

WELCOME AND INTRODUCTIONS

Colonel Nathan Fulk—
Public Safety and
Enforcement Subcommittee
Chair



NEW SUBCOMMITTEE MEMBERS

- Hossein Naraghi – Transportation Planner, Traffic and Safety, Iowa DOT
- Lisa Spellman, Director, Vulnerable Road User (VRU) Safety Consortium (SAE ITC program)





CRASH RECONSTRUCTION WITH NTSB AT NADS

Dan McGehee– Director, National Advanced
Driving Simulator

Reconstruction and visualization of next generation automated vehicles

Dan McGehee

ATC

June 29, 2022

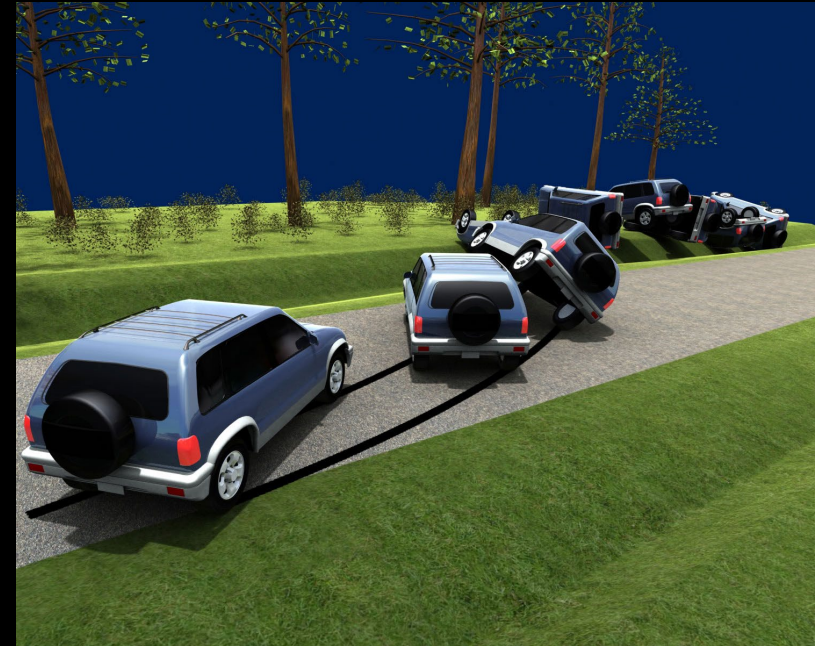
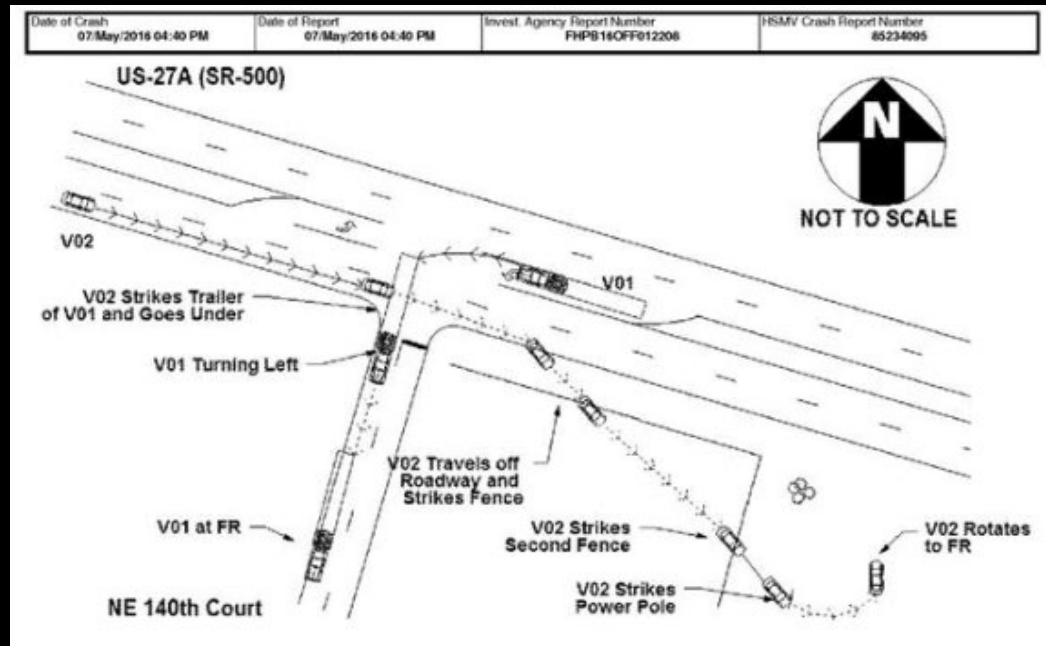
IOWA

College of Engineering

National Advanced Driving Simulator

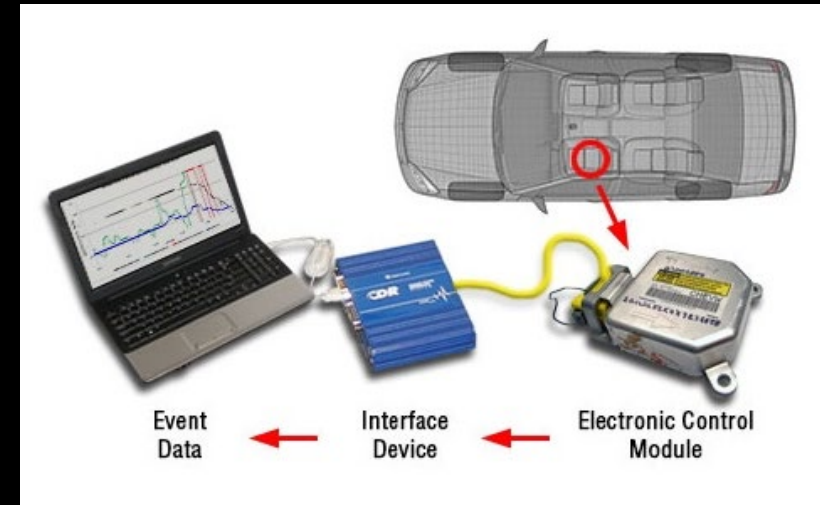


Main principle:
Crash reconstruction starts from the
end point of the crash and works
backwards



Data

- Event Data Recorder
- Physical evidence
- Video data recorders



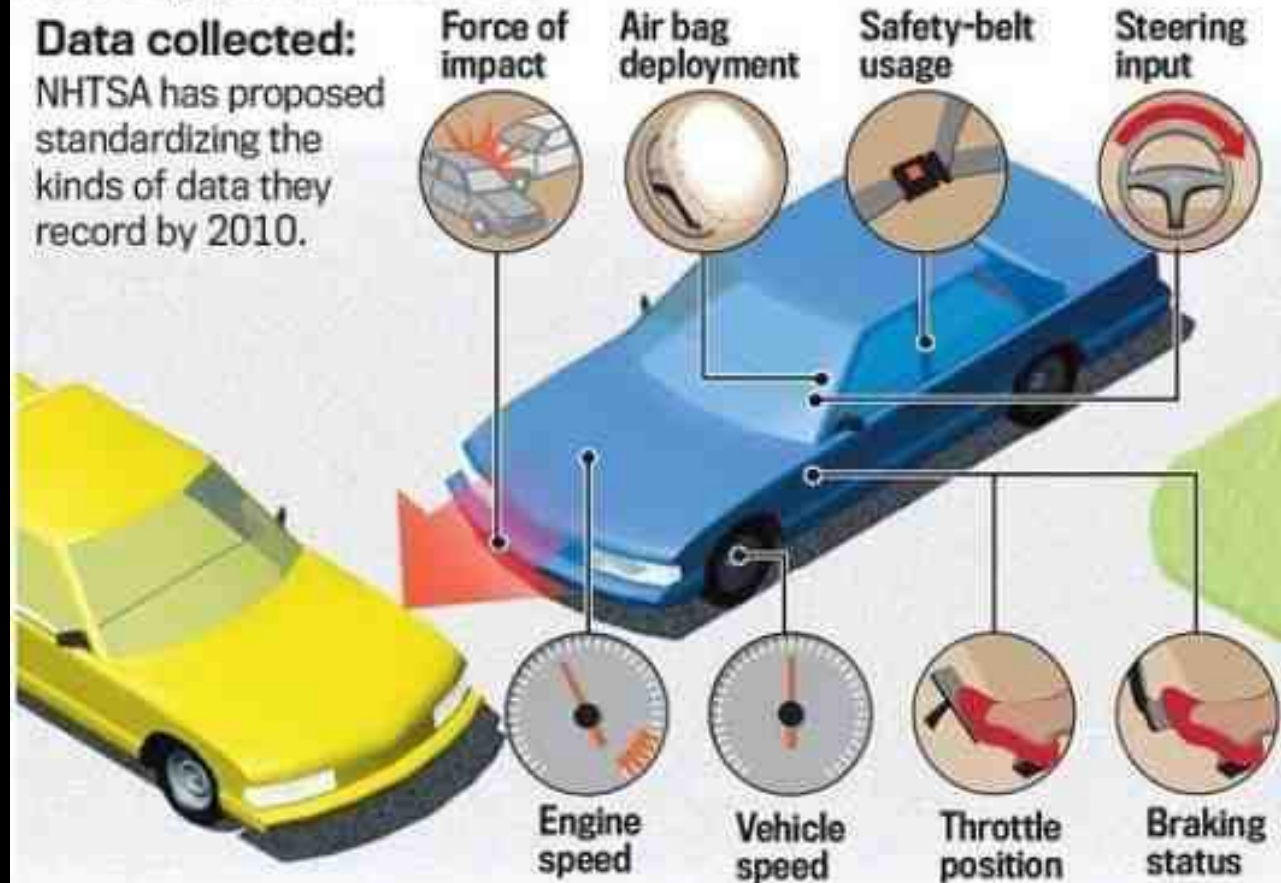
Event Data Recorders

Automotive black boxes

The devices, also known as event data recorders, are usually part of the computer system used to deploy air bags but record different information depending upon the automaker.

Data collected:

NHTSA has proposed standardizing the kinds of data they record by 2010.





Mountain View, California

March 23, 2019; 09:27 am



Tesla Model X



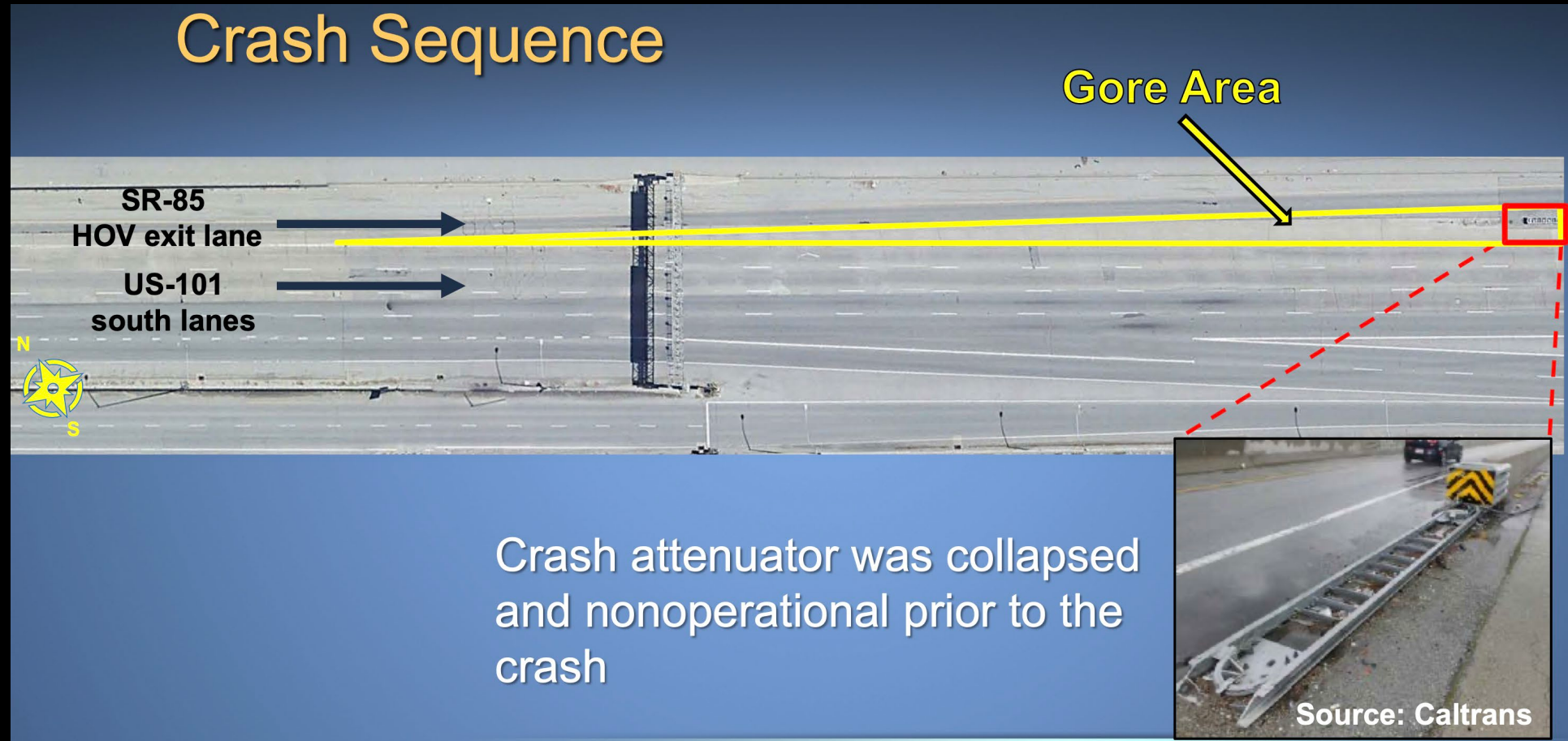
NTSB overview

Crash Overview

- Friday, March 23, 2018
- 9:27 a.m.
- Mountain View, California
- US-101 / SR-85 interchange
- 2017 Tesla Model X SUV
- 38-year-old driver
- Partial automation “Autopilot” engaged

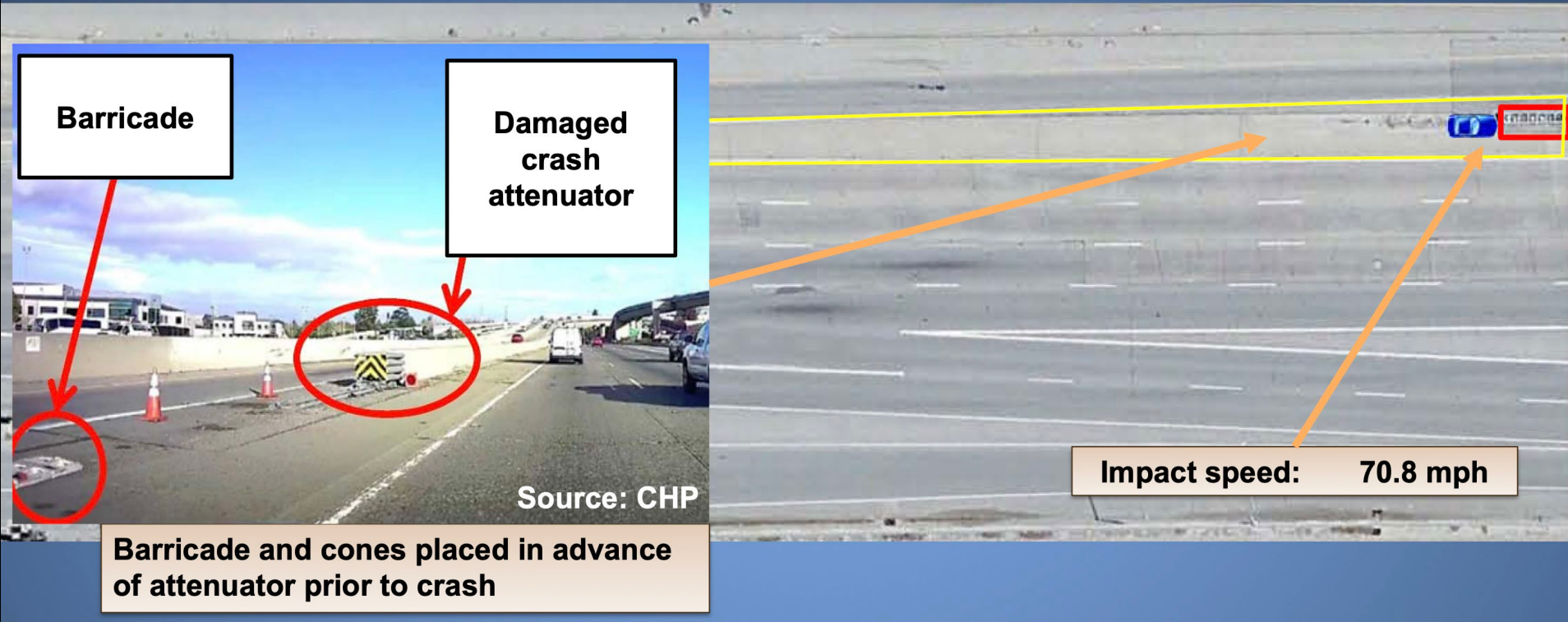


NTSB cont.



NTSB cont.

Crash Sequence



NTSB cont.



Google Street View



Thursday, March 22nd, 2018
(day prior to accident)

NTSB conclusions

Autopilot Performance



- Lane markings were worn
- Autosteer vision system likely lost lane line prediction
- Identified stronger lane line
- Steering movement likely due to vision system limitations

NTSB conclusions (cont.)

Driver Performance

- Driver had unobstructed view
- Numerous visual cues of hazard ahead
- Driver took no evasive braking or steering action
- Level of inaction indicates inattention to forward roadway
- Driver not supervising Autopilot

NTSB conclusions (cont.)

Portable Electronic Device Distraction

- Driver used game application on phone
- Cell phone game application active during crash
- Cell phone data consistent with gaming activity
- Unknown if driver was holding phone
- Tesla Carlog data – hands likely off steering wheel

NADS Project Overview

- Support NTSB in investigating AV-related crashes
- Reconstruct past crash: Mountain View
 - Better understand factors that led to crash
- Understand NTSB data

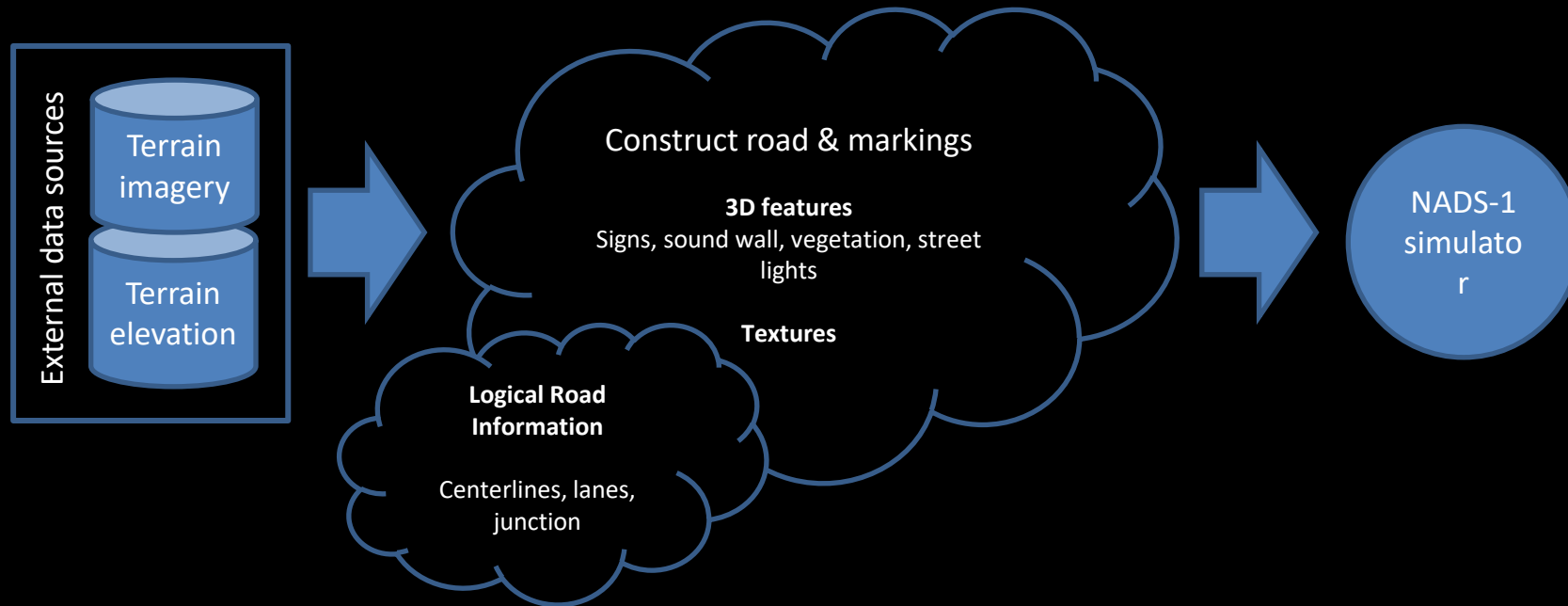


NADS Interactive Simulation

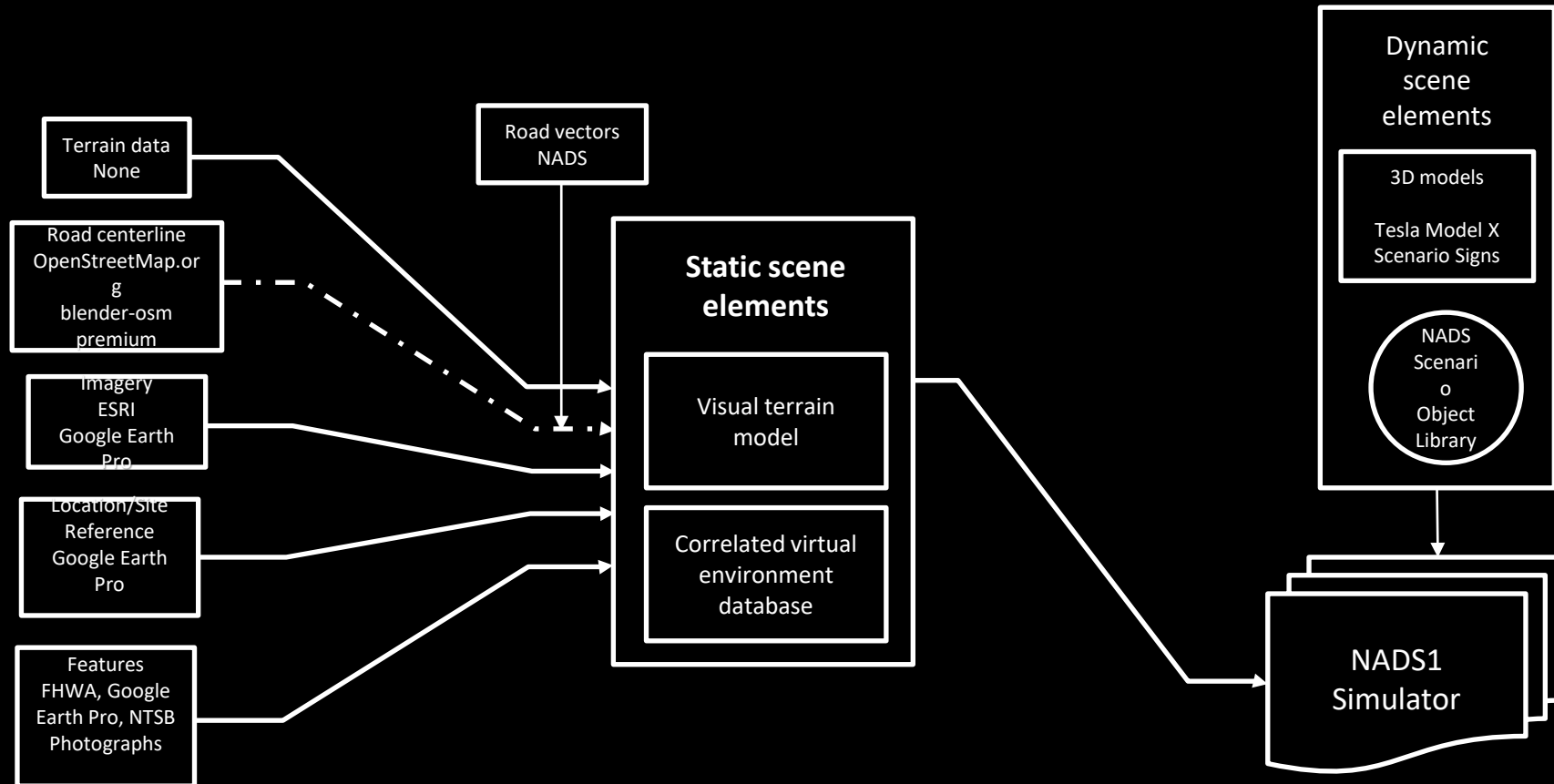


Crash Reconstruction: 3D Terrain Model

- Provide environmental visual context for crash playback

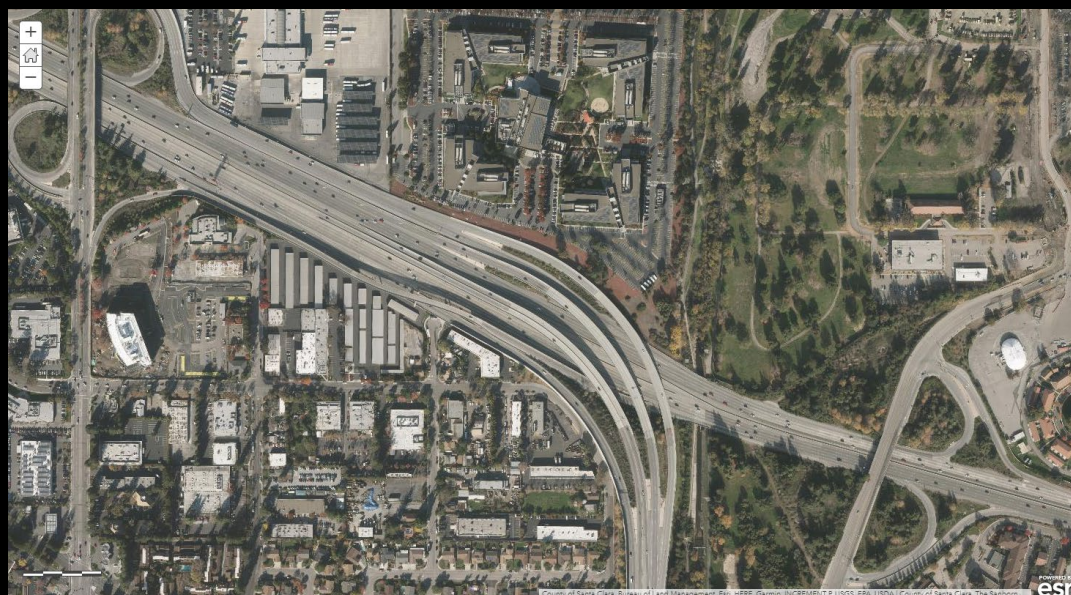


Mountain View CA: Data Sources



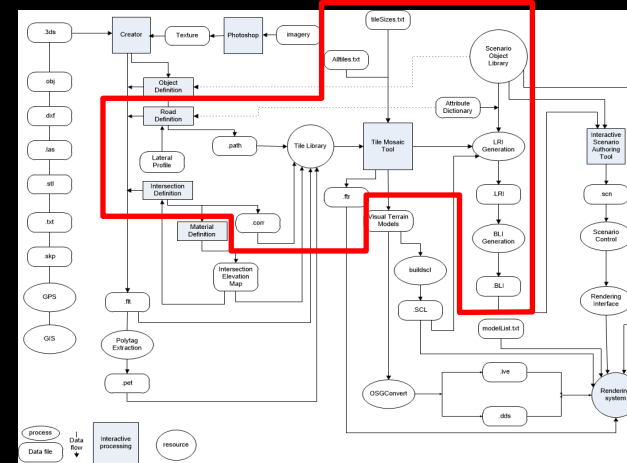
Imagery: Terrain texture map

- Orthophoto imagery downloaded from ESRI geographic server:
- <https://www.sccgov.org/sites/gis/GISData/Pages/Available-GIS-Data.aspx>

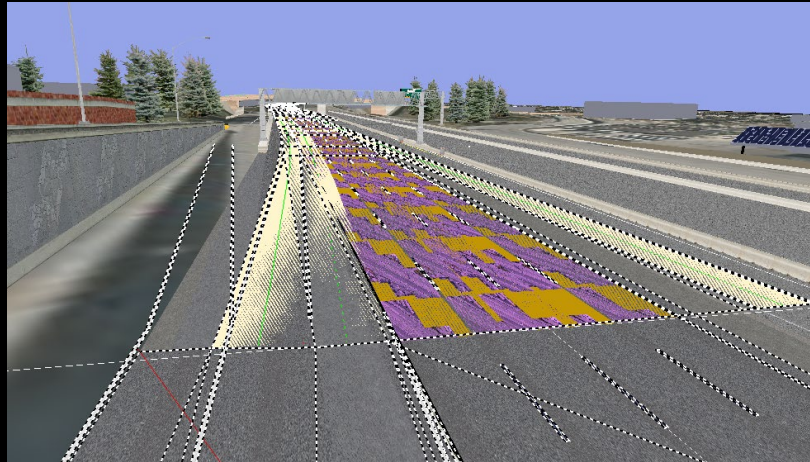


Road Centerline Vector Data

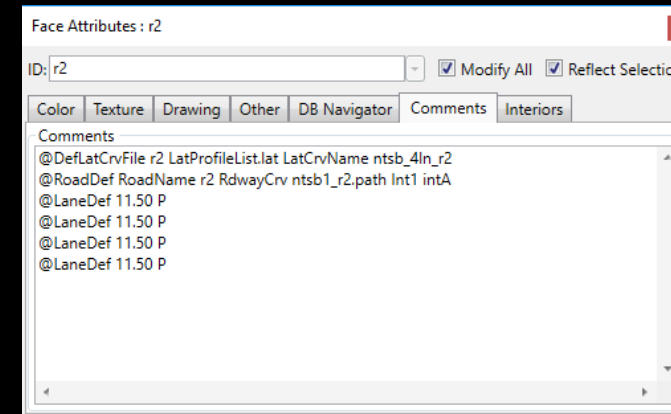
- Provide virtual/logical context for crash playback
- Correlated 1:1 with 3D terrain model visuals
- Created using NADS standard tools & processes



Road vector data

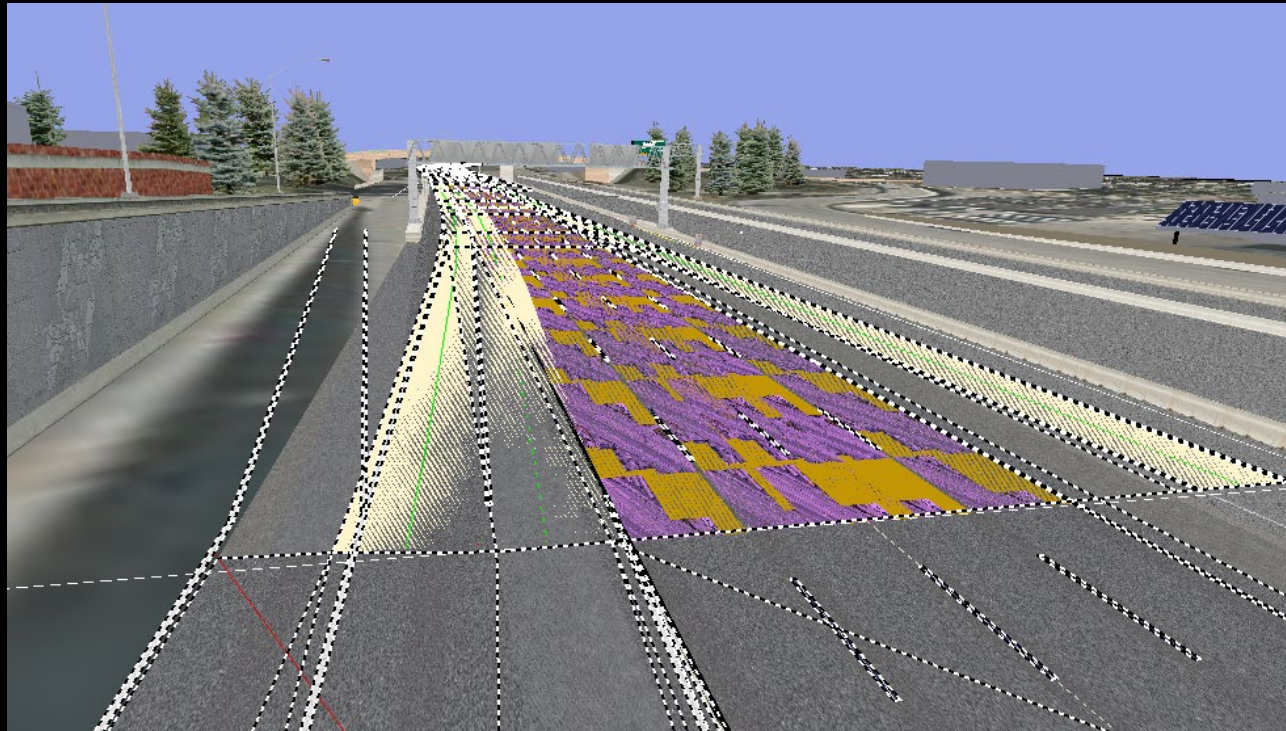


Road definition



Road Centerline Vector Data

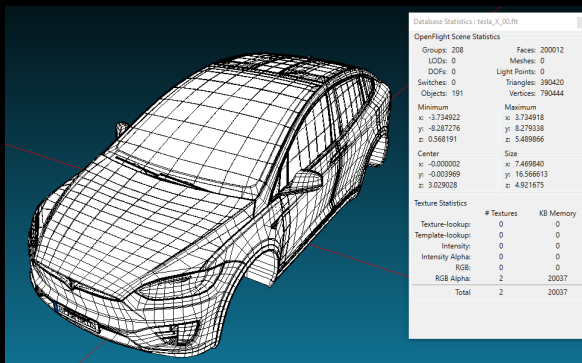
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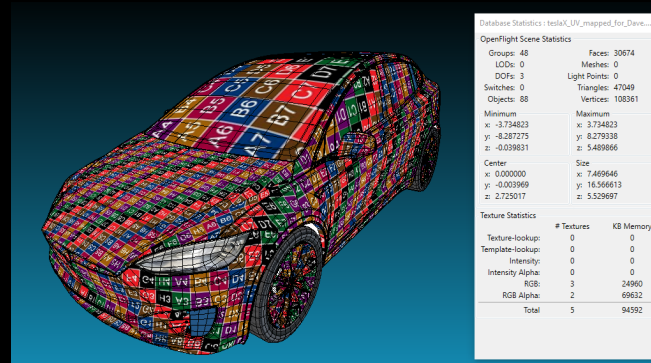
Road vector data

Tesla Model X 3D Model

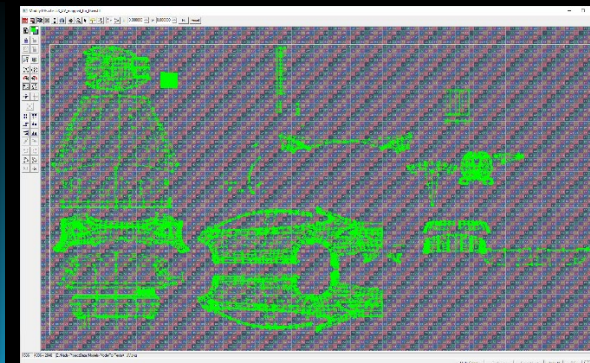
- The original 3D model mesh was not texture mapped. Assigning texture requires assigning UV coordinates to the model geometry. A geometric optimization was performed in order to assign texture to the 3D model.



Original model mesh minus wheels



Texture mapped 3D model



Texture UV islands

NADS simulation video



Still image captured from video simulation prior to crash

Overall Conclusion:
The NADS was demonstrated to be an
effective device to reconstruct and visualize
such complicated crashes



PUBLIC SAFETY AND ENFORCEMENT WORK PLAN & TACTICAL ACTIONS OR UPDATES



PS&E SUBCOMMITTEE TACTICS SUMMARY

	Deliverables	Lead(s)	Resources	Scenarios	Timeline
Capture AV Crash Data	Revised TraCS form and DB Coordinate with the MMUCC update and align with NLETS	AV Crash Data Working Group	Stakeholder engagement, technical staff to revise the TraCS database	TBD (dependent on resources and priorities)	TBD (recurrent agenda item)
Explore Vehicle Automation Indicators	List of potential AV indicators Reconnaissance and recommendations	Dan McGehee	Analysis of existing guidance	Compromise on indicators	TBD
Develop Following Distance Guidelines	Best practice synthesis Guidelines for enforcement	Major Mark Stine & Asst. Chief Tom Bruun	Stakeholder engagement w/ law enforcement, analysis of existing guidance	Dependent on experience with changed law	TBD
Address VRU Safety	Align with the bike and ped community Addressed in SHSP update and other modal plans	Ashley Hochberger & Mark Wyatt	Staff time and dedication to updating SHSP	N/A	On-going
Inform TIM and Safety Community	Presentation	DOT & DPS	Outreach to the Statewide TIM Committee	N/A unless major AV incident occurs	On-going
LEP/LEIP Development	Assess / adopt AAMVA and other national guidance recommendations	ISP/MVE	Staff Time and coordination with industry	TBD	TBD

A photograph of a car's interior, focusing on the dashboard and steering wheel. The dashboard is a large, curved digital display showing various driving metrics and navigation information. The steering wheel is black with a digital display in the center. The car's interior is modern and sleek, with a focus on technology and safety.

PUBLIC SAFETY & ENFORCEMENT WORK PLAN & TACTICAL ACTIONS OR UPDATES

US DOJ sponsored research project Public Safety Considerations for ADS Deployment – Nathan Fulk (Subcommittee Chair)

AV Crash Data Working Group– Adam Shell (Iowa DOT)

A futuristic car interior featuring a large, curved digital display on the windshield showing navigation, speed (60 km/h), and various vehicle status icons. The dashboard and steering wheel are visible, with a central infotainment screen and a digital instrument cluster.

AV Crash Data Working Group – Adam Shell (Iowa DOT)

AV CRASH DATA WORKING GROUP

- [AASHTO State CAV Community of Practice](#) (CoP) Meeting- April 4th, 2022
- AV Crash Data Working Group Meeting – April 14th, 2022
 - AASHTO State CAV CoP April 4th meeting debrief
 - MMUCC Update Status
 - Associated Federal Rulemaking involving the MUCC ([Item 1](#), [Item 2](#))
- NHTSA Standing General Order (SGO) requiring crashes for L2 to L5 equipped vehicles
 - June 15th briefing
 - Website: <https://www.nhtsa.gov/laws-regulations/standing-general-order-crash-reporting>

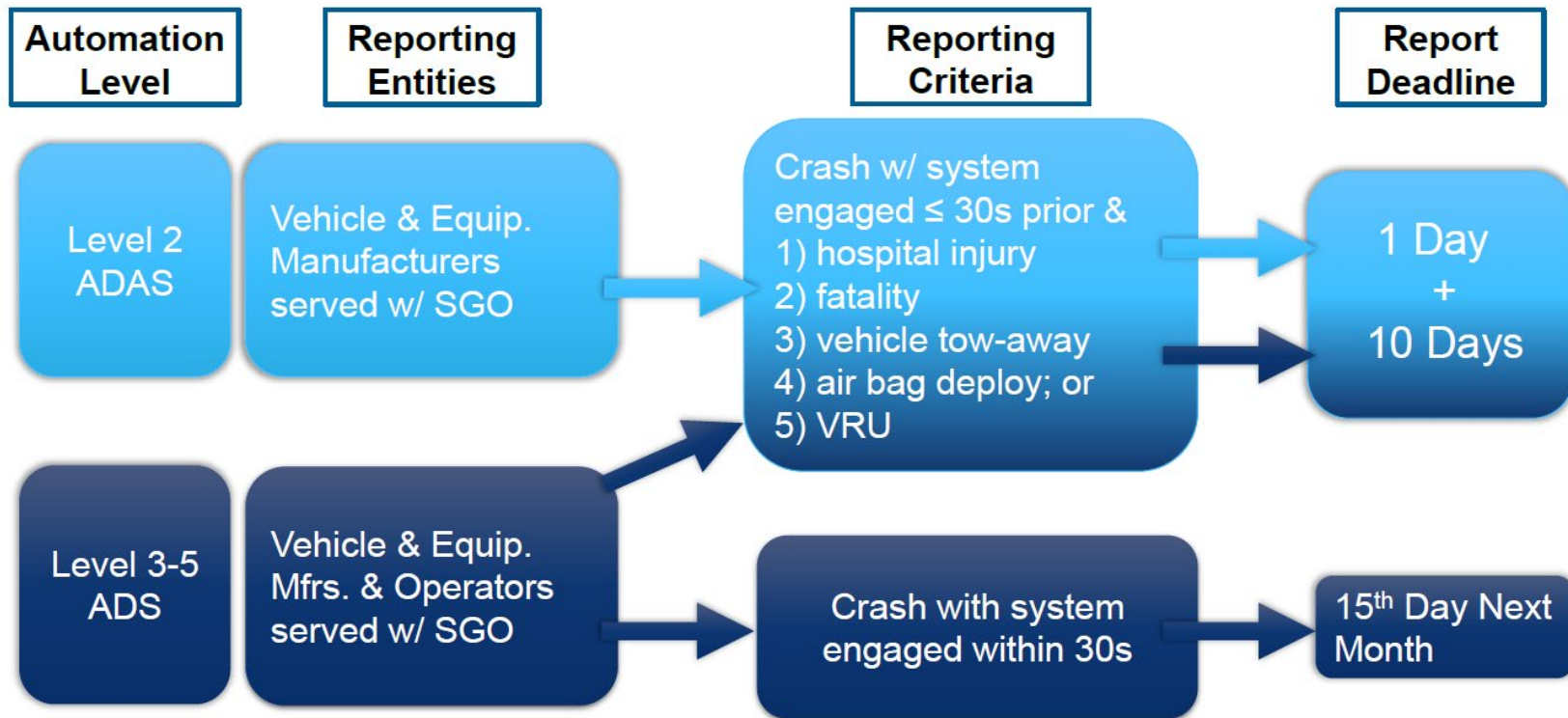
WG Membership

- Iowa State Patrol
 - Col. Nathan Fulk
 - Lt. Mike Current
 - Sgt. Chuck McNally
- Iowa DOT
 - Adam Shell
 - Dennis Kleen
 - Hossein Naraghi
 - Josh Halterman

AV CRASH DATA WORKING GROUP

NHTSA Standing General Order (SGO) requiring crashes for L2 to L5 equipped vehicles

Reporting Requirements Differ for Level 2 ADAS and ADS



AV CRASH DATA WORKING GROUP

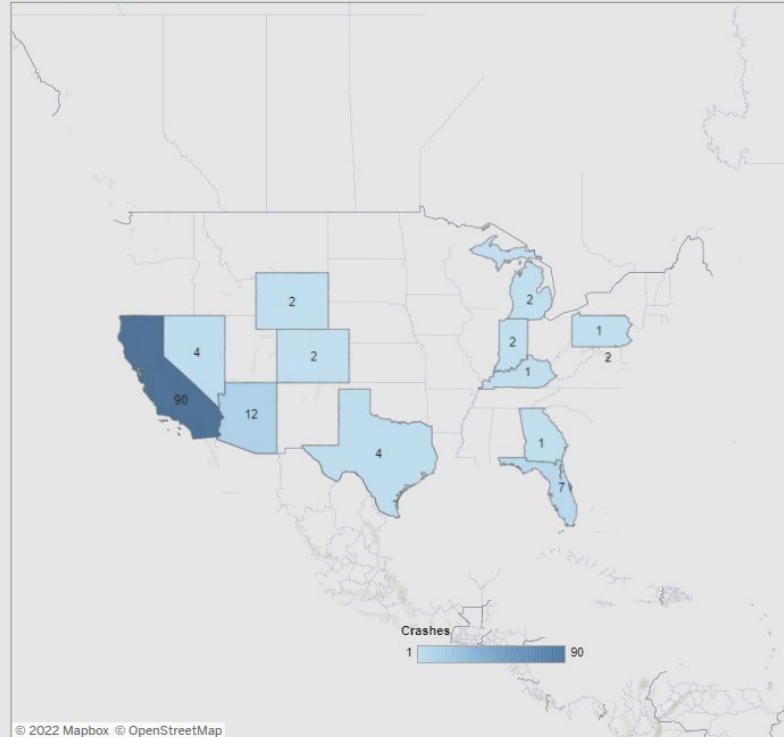
NHTSA Standing General Order (SGO) requiring crashes for L2 to L5 equipped vehicles

ADS-Equipped Vehicles

Crashes by:

Month (ADS) State (ADS) Reporting Entity (ADS) Collision & Severity (ADS) Source & Damage (ADS)

ADS Crashes by State

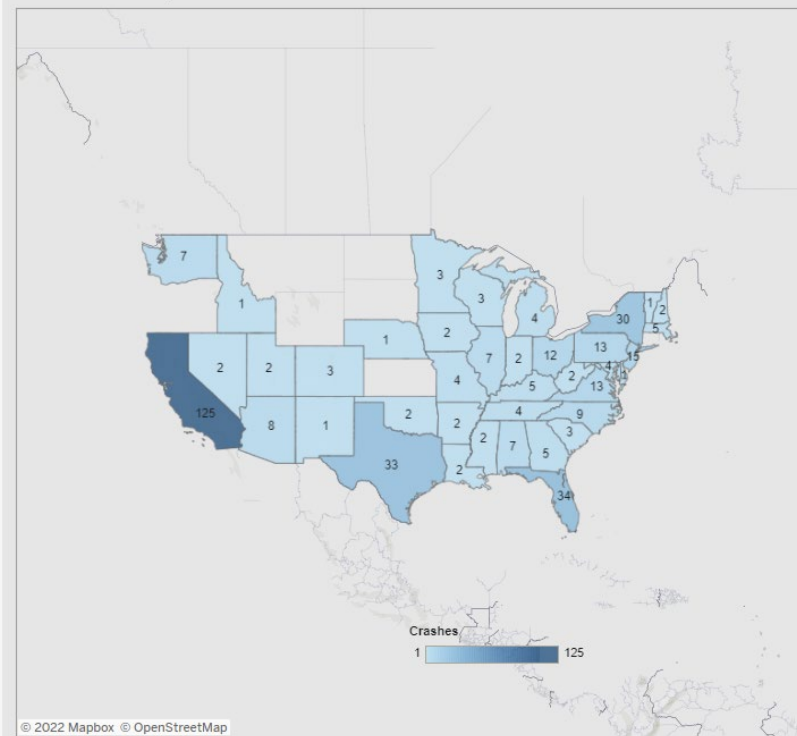


Level 2 ADAS-Equipped Vehicles

Crashes by:

Month (ADAS) State (ADAS) Reporting Entity (ADAS) Collision & Severity (ADAS) Source & Damage (ADAS)

Level 2 ADAS Crashes by State



Source: [NHTSA](#)

Crash Data:
June 2021 – May 2022

ADVANCED TECHNOLOGIES PROJECT & OPPORTUNITIES DISCUSSION

March 2022 ATC Meeting Charge

- Explore opportunities to deploy advanced technologies this year
- Focus on freight, mobility, or safety
- Pursue discretionary grants



ADVANCED TECHNOLOGY PROJECT BRAINSTORMING

Infrastructure Readiness (IR)

- Slow-speed roadway maintenance operations
- Technology solutions to collect or validate transportation data
- Driver behavior in work zones
- Statewide Traveler Information and Work Zones/Operations real-time data
- Pavement Markings
 - Statewide inventory & expansion of 4" to 6" markings to support ADAS and ADS
- Smart City technology partnership opportunities

Economic Development (EcDev)

- Labor & Workforce
 - Develop courses, training, and/or certificate programs for future AT workers
 - Develop outreach material for K-12 students to engage them in an AT related career
- Freight pilot deployment

Public Safety & Enforcement (PS&E)

- Law Enforcement & First Responder Training/Curriculum
- Address Vulnerable Road User (VRU) Safety

Policy & Legislation (P&L)

- Automated Transit or Shuttle Demonstration
- Community Readiness - associated Smart City technology idea for the IR subcommittee

ADVANCED TECHNOLOGY PROJECT FUNDING STREAMS

Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) Program

- Description: Program for the development of model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure ROI
- Sponsor Agency: US DOT FHWA
- Funding: TBD
- Timeline: TBD

INFRA Grants Program

- Description: Program for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas
- Sponsor Agency: US DOT
- Funding: \$7,250,000,000 (total available FY22-FY26)
- Timeline: May 23, 2022

Small Business Innovation Research Program

- Description: Program awarding contracts to domestic small businesses to pursue research on and develop innovative solutions to our nation's transportation challenges
- Sponsor Agency: US DOT
- Funding: TBD
- Timeline: March 7, 2022; TBD for future years

Smart and Connected Communities (\$&CC)

- Description: Program to accelerate the creation of the scientific and engineering foundations that will enable smart & connected communities to bring about new levels of economic opportunity & growth, safety & security, health & wellness, accessibility & inclusivity, and overall quality of life
- Sponsor Agency: National Science Foundation
- Funding: \$26 million total; available until expended
- Timeline: April 1, 2024

ADVANCED TECHNOLOGY PROJECT BRAINSTORMING

Public Safety & Enforcement (PS&E)

- Law Enforcement & First Responder Training/Curriculum
- Address Vulnerable Road User (VRU) Safety

INFORMATION AND KEY MEETING DATES

Policy & Legislation Subcommittee Meeting – Tuesday, May 17 from 1-2 pm ([Link](#))

- *Mobility Justice in AV Planning and Community Readiness – Dr. Laura Sandt, Senior Research Associate, University of North Carolina Safety Research Center*

Economic Development and Infrastructure Readiness Joint Subcommittee Meeting – Tuesday, May 24 from 1-2 pm ([Link](#))

- *Autonomous Vehicles Navigating to American Cities and Towns - Brittney Kohler, Legislative Director, Transportation & Infrastructure Service, National League of Cities*

AT Council Meeting – Wednesday, October 5 from 10 am -12 pm

- *Presentations – Robert Heilman, Director at the Highly Automated Systems Safety Center of Excellence, US DOT; Paul Steier, Director of Vehicle Programs, American Association of Motor Vehicle Administrators; Neal Hawkins, Associate Director InTrans, Iowa State University*

INFORMATION AND KEY MEETING DATES

AAMVA International Conference – September 13-15th

International Association Chiefs of Police Annual Meeting – October 14th - 17th



THANK YOU