

Update from TRB: Setting the Stage for CAVs

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I-95 Corridor Coalition: CAV Conference
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NCHRP Overview

- National Cooperative Highway Research Program
- Funded voluntarily by state DOTs
- “AASHTO’s Research Program” for over 50 years
- \$40M annual budget
- Focused on applied research addressing state DOT issues
- Managed by the Transportation Research Board

NCHRP Legal Digest 69

A Look at the Legal Environment for Driverless Vehicles

- Civil liability for personal injury
- Criminal law and procedure
- Evolving insurance matrix
- Privacy and security laws
- Legislative and regulatory issues
- Sustainability issues: land use, environment, infrastructure

NCHRP 20-102

Impacts of CVs and AVs on State and Local Transportation Agencies

- Project approved in December 2014
- \$3.5M authorized to date; likely additional \$ in future years
- Panel decides which tasks to pursue
 - Principally from a research roadmap developed in NCHRP Project 20-24(98)
- Contractors selected through limited closed competition

NCHRP 20-102: Active Tasks (1)

- Implications of automation for motor vehicle codes (\$350k)
- Providing support to the introduction of CV/AV impacts into regional transportation planning and modeling tools (\$300k)
- Dedicating lanes for priority or exclusive use by CVs and AVs (\$350k)
- Road markings for machine vision (\$200k)
- Evaluation Guidance for AV Pilot and Demonstration Projects (\$70k)

NCHRP 20-102: Active Tasks (2)

- Policy and planning actions to internalize societal impacts of CV and AV systems into market decisions (\$400k)
- Impacts of regulations and policies on CV and AV technology introduction in transit operations (\$150k)
- Challenges to CV and AV applications in truck freight operations (\$150k)
- Strategic communications plan for NCHRP 20-102 (\$100k)

Automated Vehicles Symposium



- July 19-21, 2016 in San Francisco
- 1,000 attendees expected
- Sessions and breakouts include:
 - Policy Making for Automated Vehicles: A Proactive Approach for Government
 - Law & Policy as Infrastructure
 - Ethical and Social Implications
 - “AV-Ready Cities” or “City-Ready AVs?”

AVS 2015 Takeaways (1)

- Private sector is moving ahead, with or without public agencies – investing billions in R&D
- Conventional public agency approaches to research may need to be reexamined.
 - Timeframes do not match transformational technologies
 - Historically looking backwards for guidance vs. looking forward for scenario planning

AVS 2015 Takeaways (2)

- Research is needed to inform policy makers and public agencies based on fact, not sensationalism or extremes
- Mechanisms needed to coordinate and share research
- How safe is safe enough? Society is not likely accept even a small number of deaths *caused* by CAVs, even if net deaths decrease

Research Partners Symposium

- October 31 – November 1, 2016 in Detroit
- Partnerships to enable research and innovation for public agencies
- Topics include:
 - CAVs
 - Shared use systems
 - Unmanned aerial systems
 - NextGen
 - Big data
 - Cybersecurity
 - Smart cities
 - Internet of things
 - Alternative vehicle fuels

2015/2016 TRB CAV activities

- Automated Vehicle Symposia
 - July 20-24, 2015: Ann Arbor, MI
 - July 18-22, 2016: San Francisco, CA
- EU-US Symposium “Towards Road Transport Automation” April 14-15, 2015: Washington, DC
- University Transportation Centers Symposium on Connected/Automated Vehicles, November 4-5, 2015: Washington, DC

2015/2016 TRB CAV activities

- Impacts of Automated Vehicles on State and Local Transportation Agencies (NCHRP 20-102)
- Review of USDOT Report on Connected Vehicle Initiative Communications Systems Deployment
- Urban Mobility Systems: TRB Policy Study (December 2015)
- Online community for TRB standing committees
- www.trb.org/main/transtech.aspx

What should you do?

- Attend Research Partners Symposium in Detroit
- Participate in TRB committees
- Submit research papers for TRB Annual Meeting (deadline August 1)

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