POLICY RUNDOWN

June 11-15, 2018

For Advocacy Trust and Start-Up Members

Legislative News

Takeaways from Senate Hearing Examining Effects of Emerging Autonomous Technologies on Roads and Bridges

The Senate Environment and Public Works Committee held a hearing on Wednesday, June 13, entitled “Innovation and America’s Infrastructure: Examining the Effects of Emerging Autonomous Technologies on America’s Roads and Bridges.” In addition to ITS America President and CEO Shailen Bhatt, ITS America had three members testifying on the panel, including New York City Department of Transportation Commissioner Polly Trottenberg; Wyoming Department of Transportation Director William T. “Bill” Panos (on behalf of AASHTO); and the Center for Advanced Automotive Research at the Virginia Tech Transportation Institute Director Dr. Zachary Doerzaph.

ITSA President and CEO Shailen Bhatt: 5 Takeaways

1. Connected and automated vehicle technologies and smart infrastructure have the potential to give us back our most precious resource: time. By applying intelligent transportation technologies to our existing infrastructure, we can maximize the efficiency of our system.

2. Twenty-six states and 45 cities are deploying V2I communications that use the DSRC safety spectrum band to enhance safety, reduce crashes, and decrease
fatalities. V2I deployments include expansions of the Safety Pilot Model Deployment in Ann Arbor (MI), large Pilot Deployments in New York City (NY), Tampa (FL), and Wyoming, and the Smart City Challenge in Columbus (OH).

3. “V2X applications can dramatically improve the safety and operational performance of our road infrastructure. According to NHTSA, V2I technology helps drivers safely negotiate intersections and could help prevent 41 to 55 percent of intersection crashes. Another connected vehicle safety application that helps drivers with left turns at intersections could help prevent 36 to 62 percent of left-turn crashes, according to NHTSA. In addition to the lives saved, just these two applications alone could prevent up to 592,000 crashes and 270,000 injuries each year.”

4. “We need to prepare for a future that involves a mixed fleet of intelligent and unconnected vehicles. The best way to do this is to maintain our infrastructure in a state of good repair – specifically as that relates to pavement markings and signage. We need to understand signs that work well for human eyes may need to be adapted for machine reading. And, we also need to understand how cities and states will take these waves of big data that vehicles are producing and turn it all into actionable information.”

5. “ITS America believes that an automated electric vehicle represents one of the best ways to reduce carbon dioxide pollution. ITS America calls on federal, state, and local governments and the private sector to build-out charging infrastructure to support the next generation of mobility powered by electricity. The idea that we would have zero occupancy trips with fleets of autonomous vehicles circling around with no one in them is antithetical to intelligent mobility.”

Wyoming Department of Transportation Director Bill Panos: 5 Takeaways

1. “As the owners of a significant amount of the highway transportation infrastructure, state DOTs are at the
forefront of preparing for deployment of CAVs (connected and automated vehicles), including ensuring that the current infrastructure is in a state of good repair such that any vehicle can operate on it in a safe and effective manner. In addition, many state DOTs are starting to plan, design, deploy, operate, and maintain the technology needed for CAVs, including vehicles equipped with ADS and vehicles connected to each other and the infrastructure.”

2. “DOTs believe that establishing a strong foundation for CAVs requires robust connectedness for vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication.”

3. “In Wyoming, to improve safety along the 402 miles of Interstate 80 in my state, the Wyoming Department of Transportation is implementing a USDOT pilot program using DSRC enabled technology to connect vehicles to infrastructure and to other vehicles.”

4. “Currently, state DOTs (and other infrastructure owners) are uncertain, at least at a detailed level, which roadway characteristics are critically important to the safe and efficient operation of ADS (automated driving system). Aspects of ADS have been developed in the absence of significant collaboration between the infrastructure owners and technology developers. Thus, state DOTs want a clearer consensus on infrastructure needs from the technology developers.”

5. “We view the potential highway capital costs associated with CAV deployment, such as V2I and related signage, as already eligible uses of a state’s apportioned funds under the Federal-aid Highway Program. However, to the extent that any type of highway capital cost related to servicing CAVs comes to the attention of the Committee as not eligible under the current program, the additional eligibility should be provided.”

New York City Department of Transportation Commissioner
Polly Trottenberg: 5 Takeaways
1. "Comments about HAVs from automakers and industry personnel continue to suggest that cities and other localities need to ‘get ready’ for the deployment of HAVs and that they need to rethink our approach to roadway design and infrastructure maintenance. I would argue just the opposite. New HAV technology should instead be prepared to operate safely and effectively in complex urban environments, on streets with pedestrians overflowing into parking lanes, construction workers waving instructions to redirect vehicles, time-of-day restrictions on bus lanes, and sometimes deteriorated pavement conditions and lane markings."

2. "With an enormous backlog of critical infrastructure needs nationwide and insufficient federal, state and local dollars to pay for it, governments must prioritize the investment of scare dollars. It is not realistic or feasible to expect cities and states to overhaul their existing roadway infrastructure to accommodate a still somewhat unproven technology."

3. "If not implemented carefully, HAV technology has the potential to congest our streets and worsen our air quality even more dramatically. But if implemented appropriately, HAVs could bolster more efficient ridesharing services and potentially lead to a reduced demand for personal vehicle ownership in transit rich cities like New York."

4. "Through a USDOT grant, New York City was selected to conduct a five-year CV (Connected Vehicle) tech deployment pilot along Manhattan’s FDR Drive as well as in up to 400 locations in midtown Manhattan and Brooklyn. These intersections are being equipped with devices that will communicate with approximately 7,000 vehicles enrolled in the pilot. The pilot also connects with our existing network of smart traffic signals that communicate wirelessly with our Traffic Management Center."

5. "We feel strongly that HAVs need to incorporate CV technology in order to eventually operate safely and efficiently on city streets."
Center for Advanced Automotive Research at the Virginia Tech Transportation Institute Director Dr. Zachary Doerzaph: 5 Takeaways

1. "Automated vehicles are designed to operate on roadways created for human drivers. As with humans, reliable automated-vehicle performance is related to the quality of road design, lane markings, signs, and other traffic control devices."

2. "Specific infrastructure features can present challenges unique to automated vehicles. Such edge-and-corner cases include work zones, emergency situations, adverse weather, and anywhere that humans rely on a simple glance, nod, or handwave to communicate with other road users."

3. "Connected technologies—including cellular and dedicated short-range communications—between vehicles and the infrastructure provide an additional mechanism for improving the perception, recognition, and path planning processes for automation, resulting in a safer and more efficient system overall."

4. "Connectivity enables proactive collaboration between elements of the transportation network, thereby permitting quicker and more robust decisions."

5. "Provide the resources and guidance required to improve our physical and digital infrastructure through applied research and deployment support. Connected technologies will significantly improve performance, but they require robust, nationally interoperable back end data systems, precise vehicle localization, and accurate infrastructure information across city, county, and state borders. Security mechanisms that establish digital trust and identify/remEDIATE threats are imperative."

View the hearing and read full testimony here
State and Local Policy Updates

Kansas Governor Announces Change Allowing for More Local Transportation Funding

Kansas Governor Jeff Coyler (R) announced an improvement to the State's Federal Fund Exchange program that allows all 105 counties and many cities in the state the option of sending their federal transportation funding to the Kansas DOT. Localities that choose to do so can use that funding source without having to comply with a range of federal regulations. By boosting the exchange rate back up to 90% from 75% last year, the state is making an additional $45 million available for local road and bridge projects.

PennDOT to Meet with AV Operators Regarding Regulations

The Pennsylvania Department of Transportation reportedly plans to meet separately with the five operators of autonomous vehicles in Pittsburgh (Aptiv, Argo AI, Aurora Innovation, Carnegie Mellon University, and Uber) to obtain their views on state regulations of AVs.

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