

June 11, 2019

The Honorable Roger Wicker  
Chairman, Senate Committee on Commerce, Science and Technology

The Honorable Maria Cantwell  
Ranking Member, Senate Committee on Commerce, Science and Technology

Dear Chairman Wicker and Ranking Member Cantwell:

As part of your oversight hearing related to the Federal Communications Commission, I am submitting this letter on behalf of the American Association of State Highway and Transportation Officials (AASHTO). AASHTO represents all 50 states, the District of Columbia, and Puerto Rico and serves as a liaison between state departments of transportation (state DOTs) and the federal government. The top priority for AASHTO and the state DOTs has been, and will remain, the safety of all transportation system users. An emerging technology that could significantly improve the safety of our transportation system are connected vehicles (CVs) that would create a cooperative transportation environment and is enabled by Vehicle-to-Everything (V2X) communications. Cooperative systems achieved through communication between vehicles, infrastructure, and other users will provide an enhanced layer of safety and must be advanced. This ability to communicate will be essential for extending the range of vehicle-based sensing and achieving the full potential of safety benefits envisioned by connected and automated vehicles (CAVs). AASHTO and the state DOTs believe that the deployment of CAVs will yield significant transportation safety benefits just like seat belts and airbags did in the 1980's and 1990's.

An integral part of enabling a CV environment is V2X communications and the 5.9 GHz wireless spectrum that is currently allocated solely for transportation safety purposes. Allocated by the FCC in 1999 for the safety of the public, there have been recent developments where other industries and associations have advocated for the 5.9 GHz band to be reallocated for other purposes because it is currently not being utilized to its highest potential. The reality is that in order to realize the full potential of a CV environment, an unprecedented amount of collaboration between the private and public sectors will have to occur on a scale not currently required between transportation infrastructure owners and operators (IOOs) and original equipment manufacturers (OEMs). Already, the public and private sectors have invested hundreds of millions of dollars to develop and deploy CV technologies and this collaboration will continue to take time to develop further and it is critical that the current 5.9 GHz band continue to be reserved for transportation safety purposes.

As IOO of the nation's surface transportation infrastructure, state and local transportation agencies are at the core of creating the CV environment. While automakers and device manufacturers (aka OEMs) will dictate availability of vehicular equipment, transportation agencies will control the deployment and operation of roadside infrastructure and the incorporation of CV technologies into infrastructure applications. Only through a strong partnership between USDOT, IOOs, and OEMs will the maximum potential benefits to safety and mobility be realized.

AASHTO recognizes that there is no current agreement among the transportation industry on which technology will be used to broadly deploy V2X applications. AASHTO's position is that the only existing technology ready for deployment to enable V2X communications using the 5.9 GHz spectrum is DSRC. As documented in numerous different reports, demonstrations, and research projects on the subject<sup>1</sup>, there are many advantages to using DSRC, the most important being that it is ready for deployment today. For example, an effort led by State and local public-sector transportation IOOs is the national Signal Phase and Timing (SPaT) Challenge<sup>2</sup>. Under this initiative, over 200 infrastructure communications devices have already been deployed with more than 2,100 planned by 2020 under this initiative in 26 States and 45 cities with a total investment of over \$38 million. Furthermore, it is the goal of the SPaT Challenge to deploy a DSRC-based V2X communications infrastructure with SPaT broadcasts in at least one corridor with at least 20 signalized intersections, in each of the 50 States by January 2020. There are other trade associations and companies pushing for competing technologies that use the 5.9 GHz spectrum including LTE C-V2X and 5G New Radio that are purported to be better than DSRC. While other V2X technologies are being developed and tested, the most important advantage of DSRC is that it is ready for deployment **today** which no other technology can claim at this time. However, AASHTO understands and appreciates the fact that this technology will most definitely evolve over time.

The current debate among stakeholders in the transportation industry on how best to use the 5.9 GHz spectrum should not be utilized as an excuse to open the spectrum for non-transportation safety purposes. Rather, it must be seen as a reason to continue to preserve the spectrum because the transportation industry needs and wants to use the spectrum for transportation safety and a CV environment can only be created if there is a spectrum available with which CV technologies can use to communicate. Thus, continuing to preserve the spectrum will create a greater imperative for USDOT, IOOs, and OEMs to continue their strong partnership to determine a way forward to use the spectrum. And, AASHTO stands ready to support this endeavor in any way we can.

In closing, AASHTO's members understand that a CV environment holds the potential to support a fundamental advance in ensuring the safety of our surface transportation system. While the vehicle component and infrastructure component of the transportation system have traditionally been only loosely coupled (through static signing and markings, dynamic message signs, traffic sensors, etc.), CV technology will allow these components to work actively together—creating a fully cooperative transportation environment. This provides the potential for significant safety improvements, reduction in congestion, reduced fuel consumption, lowered

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<sup>1</sup> Please see <http://cav.transportation.org>

<sup>2</sup> More information on the SPaT Challenge is available here: <https://transportationops.org/spatchallenge>

emissions, and improved traveler experience. However, in order for this future to become a reality, the 5.9 GHz spectrum must be preserved for transportation safety purposes.

If you would like to discuss the issues raised in this letter, please contact Matthew Hardy, Ph.D., AASHTO's Program Director for Planning and Performance Management at (202) 624-3625.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Tymon". The signature is fluid and cursive, with a large initial "J" and "T".

Jim Tymon  
Executive Director  
American Association of State Highway and Transportation Officials