



SAFETY SPECTRUM COALITION

COMMENTS OF THE SAFETY SPECTRUM COALITION IN RESPONSE TO DOT'S NOTICE SEEKING PUBLIC COMMENT ON REGULATORY REVIEW

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The Safety Spectrum Coalition (the “Coalition”) appreciates the opportunity to provide comments in response to DOT/OST’s October 2, 2017, Federal Register notice regarding regulatory review.¹ The Safety Spectrum Coalition represents a broad group of industries, highway users, and transportation technology, consumer, and safety advocates that support and promote the need to deploy vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I) and vehicle-to-everything (V2X) technologies using Dedicated Short Range Communications (DSRC) services. DSRC utilizes the 5.9 GHz radio spectrum band that the Federal Communications Commission (FCC) has allocated for intelligent transportation services.

As the U.S. Department of Transportation (DOT) conducts its regulatory review it is important that the Department continue its efforts to establish a uniform federal standard for V2V safety communications nationwide, and the Coalition urges the National Highway Traffic Safety Administration (NHTSA) to maintain the V2V Notice of Proposed Rulemaking (NPRM) on FMVSS No. 150 as part of the agency’s regulatory agenda.

Technology using DSRC represents the culmination of over a decade of work and millions of dollars of public and private sector investment to establish a robust, interoperable, and secure communications protocol that allows vehicles to securely and anonymously transmit safety critical data to reduce traffic fatalities and injuries, mitigate congestion and improve traffic flow. DSRC-supported V2V and V2I allows vehicles to effectively avoid safety critical situations before they encounter them. Vehicle connectivity is also a key component to supporting high level vehicle automation providing complementary and fallback safety.

A uniform nationwide standard is needed to ensure V2X interoperability, so vehicles equipped with this safety technology are capable of communicating and understanding the same basic safety messages. We recognize that the DOT has recently assigned the V2V as a “long-term action”; however, it is imperative that safety communications nationwide interoperability remain

¹ Safety Spectrum Coalition members include: AAA, American Highway Users Alliance, American Traffic Safety Services Association, American Trucking Associations, Association of Global Automakers, Commercial Vehicle Training Association, Intelligent Transportation Society of America, Mothers Against Drunk Driving, Motor & Equipment Manufacturers Association, NAFA Fleet Management Association, and National Safety Council.

a priority for the Department. As we seek to address the most significant challenges facing the future transportation system, it is of critical importance that DOT support DSRC deployment and protect the entire 5.9 GHz for interference-free V2X operations. Significantly delaying efforts to establish a nationwide V2V standard would compromise NHTSA's safety efforts at time when fatalities and injuries on our roadways have been increasing.

Background

DSRC is a proven technology that enables real-time wireless communication between vehicles and other road users and the surrounding infrastructure to help save lives, increase transportation efficiency, and reduce congestion. While several V2I deployments are already demonstrating the benefits of this technology in more than half of the U.S. states across the country, we believe that the proposed rule to establish a Federal Motor Vehicle Safety Standard (FMVSS) making V2V a common capability in cars and light trucks is essential to rapid, nationwide, interoperable V2V (and V2X) deployment.

DSRC based technology is tested, proven and ready now for mass deployment. However, a uniform national standard would provide the necessary regulatory certainty that vehicles and infrastructure equipped with DSRC technology are communicating using the same interoperable protocols. Safety is the number one priority. According to recent crash data from NHTSA, there were 37,461 traffic fatalities in 2016, an increase of 5.6 percent from the previous year. The National Safety Council estimates that 4.6 million roadway users were injured seriously enough to require medical attention in 2016, and the estimated cost to society was \$432.5 billion. According to NHTSA estimates, just four V2V applications could avoid or mitigate 89 percent of light duty vehicle crashes and 85 percent of their associated costs, saving thousands of lives, avoiding millions of injuries, and yielding billions of dollars in cost savings.

Connectivity is a Key Component of a Modern Transportation System

As the Administration works to modernize our infrastructure, it is critical to understand the unique role connectivity can play, on both urban and rural roadways, for both commercial and passenger vehicles. V2V and V2I communications can augment and support automated driving systems across all levels of automation allowing for safer, smarter decision-making within a mixed fleet environment – where automated vehicles will be operating on the same roads as conventional vehicles, motorcycles, bicycles and pedestrians. DSRC is the code that can connect a future transportation system.

While automated driving systems continue to advance, it is the combination of connected and automated driving that promises the greatest opportunity to dramatically reduce traffic fatalities and injuries and to improve throughput on the roads we already have. For example, in September of this year, the Federal Highway Administration conducted truck platooning demonstrations in the Commonwealth of Virginia utilizing DSRC combined with automated features to communicate acceleration and braking information faster than human reaction. This enables two or more trucks to travel closely together safely at highway speeds, taking advantage of the aerodynamics to lower fuel consumption. Such safety and efficiency applications are not achievable using stand-alone automated sensor technology without connectivity.

Regulatory Action and Spectrum Certainty is Needed

NHTSA's proposed nationwide standard provides the framework and certainty that are critical to drive not only substantial and rapid light-duty fleet deployment of V2V technology. Providing additional regulatory certainty will help spur innovation, competition, and deployment in the vehicle aftermarket, consumer electronics, and intelligent infrastructure "internet-of-things" to bring even further safety and mobility benefits to the nation's roadways. While the DSRC V2V nationwide standard and the subsequent deployment of various V2V applications are a critical step, it is important to understand that DSRC technology is designed to be a wireless V2X platform and application ecosystem through all seven channels in the 5.9 GHz band. The safety-critical applications in development for all DSRC channels will support V2V, V2I, and vehicle-to-pedestrian communications, as well as DSRC applications that support highly automated driving systems.

Finalizing this proposed nationwide standard and protecting the 5.9 GHz band currently dedicated to intelligent transportation will provide stakeholders throughout the transportation sector with the necessary federal standards and certainty needed to increase deployments of, and uses for, this revolutionary technology. The Safety Spectrum Coalition supports efforts under way to test spectrum sharing in order to determine if unlicensed devices such as Wi-Fi can safely share the 5.9 GHz band with DSRC. However, we firmly believe that evaluating the impacts of sharing, and any potential sharing plan, should work around intelligent transportation operations in the band and not slow deployment of DSRC based technology. Any sharing arrangements that would require rechanneling the band would delay the implementation of DSRC based technology and the establishment of safety protocols, thus, effectively relegating vehicle safety to a secondary concern. We also urge NHTSA to remain engaged with the Federal Communications Commission at this critical juncture to ensure that the safety benefits of DSRC can be realized.

Conclusion

There are clear and immediate safety benefits from requiring DSRC based technology in all new light vehicles. The more vehicles on the road that can be connected, the greater the safety benefits. This regulation will help create a new transportation ecosystem in which vehicles will communicate with each other and their surroundings to improve road safety. The rulemaking should move forward expeditiously so that the V2V FMVSS can become a reality as soon as possible. Every day delayed risks a life that could have been saved with deployment of this revolutionary technology.

If the Department were to rescind this rulemaking, DOT would be foregoing an opportunity to deploy a truly game-changing safety technology and modernize the way in which we think about transportation. In turn, the Department would severely compromise its safety mission. Additionally, in the absence of a viable, proven wireless alternative to support V2V, DOT also risks losing the dedicated spectrum which any V2V technology will require.