

December 22, 2023

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National Telecommunications and Information Administration
1401 Constitution Avenue, N.W.
Washington, D.C. 20230

Re: Implementation of the National Spectrum Strategy, Docket No. NTIA-2023-26810

As the nation’s leading advocate for the technological modernization of our transportation system by focusing on advancing research and deployment of intelligent transportation technology, the Intelligent Transportation Society of America (ITS America) is grateful for the opportunity to comment on the National Telecommunications and Information Administration’s (NTIA) request for public input on the development of an implementation plan for NTIA’s “National Spectrum Strategy.”

ITS America was founded in 1991 as a utilized federal advisory committee to the United States Department of Transportation (USDOT) on technology innovation and emerging transportation technologies. ITS America is the only organization in the country that represents all sectors – public, private, academic, and nonprofit – to advance transportation technology. Our membership includes state and city departments of transportation, transit agencies, metropolitan planning organizations, automotive manufacturers, technology companies, engineering firms, automotive suppliers, insurance companies, and research and academic universities. Our members’ work focuses on connected and automated vehicle technologies, smart and digital infrastructure, sustainable technologies like electric vehicles, and other mobility technologies that support public transportation and freight. We work toward a world in which we achieve the nation’s Vision Zero goals to eliminate fatalities and serious injuries on our roadways; a world that is more sustainable, resilient, and adaptable to climate change; and a world in which communities have equitable and affordable access to transportation and critical services.

ITS America applauds NTIA’s efforts to develop and implement a national spectrum strategy (NSS) that fully addresses the needs of spectrum reliant services and missions, including, among other items, advanced transportation technologies. We were pleased to see that the NSS acknowledge that transportation uses and spectrum demands are “important to the Nation and must be protected from harmful radio frequency interference to ensure a high level of service availability and to best serve the public interest.” This statement reflected the spirit of the comments that ITS America submitted to NTIA in anticipation of the release of the NSS, which are available here. ITS America continues to support the approaches outlined in those comments, and we believe that NTIA is well-positioned to facilitate successful deployment of spectrum-based transportation safety services.

The transportation community's access to the spectrum required for spectrum-based transportation solutions is critical to the accomplishment of these critical national goals. Spectrum-based transportation solutions such as vehicle-to-everything (V2X) communications are poised to deliver significant safety, economic, and environmental benefits to the traveling public. These are solutions that are ready to be deployed by ITS America members today, given the appropriate regulatory environment and usable spectrum. These solutions are additionally poised to deliver significant benefits for vulnerable road user safety and safer automated vehicles, amongst other benefits, if more spectrum is allocated for their use.

With respect to implementation of the National Spectrum Strategy, ITS America supports a balanced approach between Federal and private sector spectrum utilization. In determining a course of action regarding the five bands of 2,790 megahertz of spectrum that the NSS has slated for near-term review, we encourage NTIA to prioritize the needs of spectrum-based transportation technologies, particularly in the lower 3 GHz band. As we outlined in our previous comments on the NSS, Spectrum-based safety services (such as those enabled by V2X) allow vehicles to communicate with other vehicles, infrastructure, law enforcement, and bicycle and pedestrian road users to avoid crashes and enhance safety.

Recent analysis by ITS America's Future of V2X Working Group has determined that the 30 MHz allocated to V2X communications within the 5.9 GHz band is insufficient for numerous critical safety use cases, including applications dependent on collective perception messages (CPM), maneuver coordination messages (MCM), and personal safety messages (PSM).¹ These types of messages support a broad set of advanced vehicle-to-infrastructure (V2I), vehicle-to-vehicle (V2V), and vehicle-to-pedestrian (V2P) applications, including: intersection collision warnings, intersection movement assist, cooperative adaptive cruise control, and numerous pedestrian safety applications. These message types support important advanced V2X applications that are necessary to fully realize the potential transportation safety benefits of V2X technologies. These message types are vital to allow vehicles to communicate information gained from vehicle-based sensors, such as radar and lidar, to other vehicles; to provide cooperative operation among automated vehicles; and to support numerous applications intended to protect vulnerable road users such as pedestrians and bicyclists. While cooperative automation applications promise to unlock the full potential of mixed or fully autonomous vehicle fleets on American roads, the advanced V2P applications are critically important for reversing the continued trend of increasing fatalities for pedestrians and cyclists.² These needs should be considered as a component of NTIA's analysis of how best to utilize the five spectrum bands identified in the NSS, as NTIA has a unique opportunity to meaningfully contribute to improved transportation safety for all road

¹ The Future of V2X: 30 MHz Application Map, ITS America. Available at: <https://itsa.org/wp-content/uploads/2021/01/ITS-America-30-MHz-Application-Map-1-27-21.pdf>

² Early Estimate of Motor Vehicle Traffic Fatalities for the First 9 Months (January–September) of 2022, NHTSA. Available at: <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813406>.

users by identifying opportunities for these transportation technologies to meaningfully utilize elements of this additional spectrum.

Additionally, beyond V2X, new transportation modes such as advanced air mobility (AAM) will require spectrum, and there will be a need to coordinate this in the context of the existing mobility ecosystem and in conjunction with ground transportation needs. American pursuit of AAM and Unmanned Aerial Systems (UAS) technology is critical to our global competitiveness and standing among our peers in emerging transportation technology markets, as China and Germany are already leading in this space. Furthermore, the transportation sector looks forward to working with our colleagues in the broadband sector and other parallel fields to help identify best practices around spectrum use for digital infrastructure, which promises to deliver additional safety and efficiency benefits to the traveling public. We strongly encourage NTIA to consider these emerging transportation innovations as part of the larger implementation plan of the NSS.

ITS America is grateful for the opportunity to comment on this effort and is eager to work with NTIA during the coming months as it implements the NSS. We encourage NTIA to continue to consider the public safety benefits that can be provided to the traveling public through spectrum-based transportation solutions, and applaud NTIA's recognition of transportation as an important priority within the NSS. If you have any questions, please contact ITS America's Senior Director of Policy and Advocacy, Bobby McCurdy, at bmccurdy@itsa.org.

Sincerely,

Laura Chace
President and CEO
ITS America